

State of West Virginia Agency Request for Quote

Proc Folder: 1433241

Doc Description: Security Cameras & Equipment

Proc Type: Agency Master Agreement

Reason for Modification:

Update Commodity Lines to match specifications

Proc Type: Agency Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2024-06-05	2024-06-06 14:30	ARFQ 0608 DCR2400000088	4

BID RECEIVING LOCATION

VENDOR

Vendor Customer Code: Vendor Name : IIS, Inc

Address: 460 Boardwalk Dr

Street:

City: Youngsville

State: NC Country: US Zip: 27596

Principal Contact: Audrey Brown

Vendor Contact Phone: 910-220-5494 Extension:

FOR INFORMATION CONTACT THE BUYER

Herbert Mickey Skeens (304) 558-2350

herbert.m.skeens@wv.gov

Vendor Signature X

Audrey Brown

FEIN# 90-0018166

DATE 06-06-2024

 Date Printed:
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ADDITIONAL INFORMATION

The West Virginia Department of Homeland Security - Division of Administrative Services, on behalf of the West Virginia Division of Corrections and Rehabilitation or agency, is soliciting bids to establish an open-end contract for Security Cameras and Equipment.

The equipment will be located at WVDCR facilities throughout the State of West Virginia. The cameras, NVR's and related equipment listed in this RFQ are required to maintain our current infrastructure and the equipment must be compatible to support our current infrastructure, with no additional cost to the state.

INVOICE TO		SHIP TO		
VARIOUS AGENCY LOCATIONS	,	VARIOUS AGENCY LOCATIONS		
AS INDICATED BY	ORDER	AS INDICATED BY ORD	DER	
No City	WV	No City	WV	
US		US		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	3.1.1 - Vitek - 8-Channell NVR or Equal.	50.00000	EA		
	·			\$2,818.79	\$140,939.50

Comm Code	Manufacturer	Specification	Model #
52161545	Hanwha	8 Channel NVR	WRN-810S 8TB

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS		VARIOUS AGENCY LOCATIONS	
AS INDICATED BY ORDER		AS INDICATED BY ORDER	
No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	3.1.2 - Vitek - 16-Channell Network Video	50.00000	EA		
	Recorder			\$4,703.99	\$235,199.50

Comm Code	Manufacturer	Specification	Model #
52161545			WDN 40400 40TD
Hanwha		16 Channel NVR	WRN-1610S 18TB

Extended Description:

See Attached Specifications

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INVOICE TO	SHIP TO
VARIOUS AGENCY LOCATIONS	VARIOUS AGENCY LOCATIONS
AS INDICATED BY ORDER	AS INDICATED BY ORDER

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	3.1.3 - Vitek - 32-Channell Network Video	50.00000	EA		
	Recorder			\$5,349.81	\$267,490.50

Comm Code	Manufacturer	Specification	Model #
52161545 Hanwha		16 Channel NVR + 16 port Switch	WRN-1610S 18TB

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	3.1.4 - Vitek - Hybrid Digital Video Recorder	50.00000	EA		
				\$2,711.99	\$135,599.50

Comm Code	Manufacturer	Specification	Model #
52161545		LIDY 16	35 (only 18 channels total) - 16TB
	Hanwha	IIIV-10	33 (Only 10 Charmers total) - 101B

Extended Description:

 INVOICE TO
 SHIP TO

 VARIOUS AGENCY LOCATIONS
 VARIOUS AGENCY LOCATIONS

 AS INDICATED BY ORDER
 AS INDICATED BY ORDER

 No City
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US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	3.1.5 - Vitek - 4MP Bullet IP Camera or Equal	500.00000	EA		
	·			\$523.59	\$261,795.00

Comm Code	Manufacturer	Specification	Model #	
46171610				
Hanwha			QNO-7080R	

Extended Description:

US

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	3.1.6 - Vitek - 5MP Dome IP Camera or Equal	500.00000	EA	\$652.79	\$326,395.00

Comm Code	Manufacturer	Specification	Model #	
46171610			ONIV C0002D	
Hanwha			QNV-C8083R	

Extended Description:

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS		VARIOUS AGENCY LOCATIONS	
AS INDICATED BY ORDER		AS INDICATED BY ORDER	
No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	3.1.7 - Vitek - 6MP 360* IP Panoramic Dome	500.00000	EA		
	Camera or Equal			\$1,084.19	\$542,095.00

Comm Code	Manufacturer	Specification	Model #
46171610			
Hanwha			XNF-9010RV

Extended Description:

See Attached Specifications

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INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS		VARIOUS AGENCY LOCATIONS	
AS INDICATED BY OR	DER	AS INDICATED BY ORDER	
No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	3.1.8 - Vitek - 8MP 180* IP Panoramic Bullet Camera or Equal	500.00000	EA	\$1,084.19	\$542,095.00

Comm Code	Manufacturer	Specification	Model #	
46171610				
Hanwha			XNF-9010RV	

Extended Description:

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	3.1.9 - Vitek - 4MP PTZ IP Camera or Equal	500.00000	EA	\$3,765.59	\$1,882,795.00

Comm Code	Manufacturer	Specification	Model #	
46171610			VAID 00050D	
Hanwha			XNP-C8253R	

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
10	3.1.10 - Vitek - 8MP PTZ IP Camera or Equal	500.00000	EA	\$4,040.39	\$2,020,195.00

Comm Code	Manufacturer	Specification	Model #	
46171610				
Hanwha			XNP-C9253R	

Extended Description:

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
11	3.1.11 - Vitek - 2MP HD Analog Dome Camera or Equal	500.00000	EA	\$286.79	\$143,395.00

Comm Code	Manufacturer	Specification	Model #	
46171610			HCV-6080R	
Hanwha			HCV-0000K	

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
12	3.1.12 - Vitek - 8MP HD Analog Dome Camera or Equal	500.00000	EA	\$223.19	\$111,595.00

Comm Code	Manufacturer	Specification	Model #
46171610			AOV (0004D ()
Hanwha			ACV-8081R (only 5mp)

Extended Description:

No City WV No City WV US US

				Total Price
- 2MP HD Analog Bullet gual	500.00000	EA	\$286.79	\$143,395.00
	_			#106.70

Comm Code	Manufacturer	Specification	Model #	
46171610				
Hanwha			HCO-6080R	

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
14	3.1.14 - Vitek - 8MP HD Analog Bullet	500.00000	EA	\$95.00	\$47,500.00
	Camera or Equal				, , , , , , , , , , , , , , , , , , , ,

Comm Code	Manufacturer	Specification	Model #
46171610			100 0000D / I F)
Hanwha			ACO-8020R (only 5mp)

Extended Description:

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
15	3.1.15 - Vitek - Video Management System (VT-SVRM10-C) or Eq	100.00000	EA	\$136.78	\$13,678.00

Comm Code	Manufacturer	Specification	Model	#	
46171600					
Hanwha	WAVE-PRO-01 ((need one per camera,	but each recorder	comes with 4 licenses	3)

Extended Description:

See Attached Specifications

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AS INDICATED BY ORDER		AS INDICATED BY ORDER		
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
16	3.1.16 - Extreme Networks 16 Port Network Switch or Equal	50.00000	EA	\$5,155.00	\$257,750.00

Comm Code	Manufacturer	Specification	Model #	
43222612		F	5320-16P-4XE-DC	
Extreme Networks			3320-10P-4AE-DC	

Extended Description:

See Attached Specifications

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INVOICE TO		SH	IP TO		
LOCATIONS		LO	VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		
No City	WV	No	City	WV	

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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
17	3.1.17 - Extreme Networks 24 Port Network Switch or Equal	50.00000	EA	\$5,525.00	\$276,250.00

Comm Code	Manufacturer	Specification	Model #
43222612	Extreme Networks		5320-24T-24S-4XE-XT

Extended Description:

US

See Attached Specifications

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INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS		VARIOUS AGENCY LOCATIONS	
AS INDICATED BY OR	DER	AS INDICATED BY ORDER	
No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
18	3.1.18 - Extreme Networks 48 Port Network Switch or Equal	50.00000	EA	6133	\$306,650.00

Comm Code	Manufacturer	Specification	Model #	
39121522				
Extreme Networks			5320-48T-8XE	

Extended Description:

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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
19	3.1.19 - Extreme Networks Power Cord, or Equal.	100.00000	EA	18	1800

Comm Code	Manufacturer	Specification	Model #	
39121011				
Extreme Networks		PWR CORDNEMA	PWR CORDNEMA10ANEMA 5-15PC13ST	

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	SHIP TO		
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY O			
No City US	WV	No City US	WV		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
20	3.1.20 - APC Back-UPS 850Va or Equal.	50.00000	EA	\$215.14	\$10,757.00

Comm Code	Manufacturer	Specification	Model #	
39121011				
APC	APC BX850M Bad	ck-UPS Pro BX850M, Com	pact Tower, 850VA, AVF	R, LCD, 12 ∮ V

Extended Description:

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LOCATIONS
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LOCATIONS
AS INDICATED BY ORDER

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
21	3.1.21 - Ditek Uninterruptible Power Supply (UPS) or Equal	50.00000	EA	\$126.70	\$6,335.00

Comm Code	Manufacturer	Specification	Model #	
43201803				
Ditek			DTK-UPS600	

Extended Description:

See Attached Specifications

INVOICE TO S		SHIP TO		
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
22	3.1.22 - Western Digital Purple Surveillance Hard Drive	50.00000	EA	\$483.99	\$24,199.50

Comm Code	Manufacturer	Specification	Model #	
43202010				
Western Digita			WD141PURP	

Extended Description:

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No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
23	3.1.23 - SanDisk 240GB SSD Plus or Equal	250.00000	EA	\$24.99	\$6,247.50

Comm Code	Manufacturer	Specification	Model #
43201803			
Sandisk			SanDisk 240GB SSD Plus

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
LOCATIONS		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
24	3.1.24-Seagate Skyhawk 2TB Surveillance Hard Drive or Equal	50.00000	EA	\$80.64	\$4,032.00

Comm Code	Manufacturer	Specification	Model #	
43201803				
Seagate		Seagate ST2000VXA17	' 2TB Skyhawk 5400 Hard Driv	ve, SA

Extended Description:

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 AS INDICATED BY ORDER
 AS INDICATED BY ORDER

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
25	3.1.25-Seagate Skyhawk 4TB Surveillance Hard Drive or Equal	50.00000	EA	\$122.94	\$6,147.00

Comm Code	Manufacturer	Specification	Model #
43201803			
Seagate		Seagate ST4000VX016 Sk	xyHawk 3.5" Internal,4TB

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
26	3.1.26-Seagate Skyhawk 6TB Surveillance Hard Drive or Equal	50.00000	EA	\$196.79	\$9,839.50

Comm Code	Manufacturer	Specification	Model #
43201803			
Seagate	Seagate ST6000VXA09	SkyHawk 3.5" 6TB Surveilla	ance Hard Drive

Extended Description:

INVOICE TOSHIP TOVARIOUS AGENCY
LOCATIONS
AS INDICATED BY ORDERVARIOUS AGENCY
LOCATIONS
AS INDICATED BY ORDER

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
27	3.1.27-Seagate Skyhawk 8TB Surveillance Hard Drive or Equal	50.00000	EA	\$271.13	\$13,556.50

Comm Code	Manufacturer	Specification	Model #	
43201803	Socget	co ST9000\/E001 Skybowk /	1125 Hard Drive	CATA 6Ch/a OTD
Seagate	Seagai	e ST8000VE001 Skyhawk <i>F</i>	ai 3.5 Haid Dilve,	SATA OGD/S, OTD

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
28	3.1.28-Seagate Skyhawk 10TB Surveillance Hard Drive or Equal	50.00000	EA	\$324.02	\$16,201.00

Comm Code	Manufacturer	Specification	Model #
43201803			
Seagate	Seagate ST10000VE00	1 Skyhawk Al 3.5 Hard Driv	e, SATA 6Gb/s, 10TB

Extended Description:

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INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS		VARIOUS AGENCY LOCATIONS	
AS INDICATED BY ORDER		AS INDICATED BY ORDER	
No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
29	3.1.29-Seagate Skyhawk 12TB Surveillance Hard Drive or Equal	50.00000	EA	\$390.79	\$19,539.50

Comm Code	Manufacturer	Specification	Model #	
31162300	0	0	0.4.7.4.001./ 4.0.7.0	
Seagate	Seagate ST12000VE001 Skyhawk Al 3.5 Hard Drive, SATA 6Gb/s, 12TB			

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO		
VARIOUS AGENCY LOCATIONS		VARIOUS AGENCY LOCATIONS		
AS INDICATED BY ORDER		AS INDICATED BY ORDER		
No City	WV	No City	WV	
US		US		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
30	3.1.30.1 - Junction Box: VT-JB08 or Equal	150.00000	EA	\$43.19	\$5,398.75

Comm Code	Manufacturer	Specification	Model #	
31162300				
Hanwha			SBV-140BW	

Extended Description:

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
31	3.1.30.2 - Pole Mount Bracket: VT-TPLMT or Equal	150.00000	EA	\$111.58	\$13,947.50

Comm Code	Manufacturer	Specification	Model #
31162300			
Hanwha		SBP-14	OHMW & SBP-300WMW1

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
32	3.1.30.3 - Corner Mount Bracket: VT-TCNMT or Equal	150.00000	EA	\$111.58	\$13,947.50

Comm Code	Manufacturer	Specification	Model #
31162300			
Hanwha			SBP-300CMW1 & SBP-140HMW

Extended Description:

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
33	3.1.31.1 - Junction Box: VT-TJB010 or Equal	125.00000	EA	\$68.51	\$8,563.75

Comm Code	Manufacturer	Specification	Model #	
31162300				
Hanwha			SHD-1400FPW	

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY O	RDER
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
34	3.1.31.2 - Wall Mount: VT-TWMT-A2 or Equal	125.00000	EA	\$111.58	\$16,737.00

Comm Code	Manufacturer	Specification	Model #
31162300			
Hanwha		SBP-16	60HMW1 & SBP-300CMW1

Extended Description:

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
35	3.1.31.3 - Pendant Mount: VT-TPDMT-A2 or Equal	125.00000	EA	\$111.58	\$16,737.00

Comm Code	Manufacturer	Specification	Model #
31162300		SBD 160L	HMW1 & SBP-300CMW1
Hanwha		3DF-100F	IIVIVVI & SBF-300CIVIVVI

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		VARIOUS AGENCY LOCATIONS AS INDICATED BY O	RDER
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
36	3.1.31.4 - Semi Flush Mount: VT-TFMT-L2 or Equal	125.00000	EA	\$43.19	\$6,478.50

Comm Code	Manufacturer	Specification	Model #	
31162300			_	
Hanwha			SHD-1400FPW	

Extended Description:

INVOICE TOSHIP TOVARIOUS AGENCY
LOCATIONS
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LOCATIONS
AS INDICATED BY ORDER

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
37	3.1.32.1 - Pedestal Mount: VT-TPMD-F or Equal	150.00000	EA	\$111.58	\$16,737.00

Comm Code		Manufacturer	Specification	Model #
31162300				
	Hanwha		SBP-160H	MW1 & SBP-300CMW1

Extended Description:

See Attached Specifications

INVOICE TO		SHIP TO	
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No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
38	3.1.32.2 - Wall Mount: VT-TWM-F or Equal	150.00000	EA	\$111.58	\$16,737.00

Comm Code	Manufacturer	Specification	Model #
31162300			
Hanwha			SBP-160HMW1 & SBP-300WMW1

Extended Description:

No City WV No City WV US US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
39	3.1.32.3 - Junction Box: VT-TJB-F1 or Equal	150.00000	EA	\$43.19	\$6,478.50

Comm Code	Manufacturer	Specification	Model #	
31162300				
Hanwha			SBV-160BW	

Extended Description:

See Attached Specifications

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No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
40	3.1.33.1 - Corner Mount: VT-TCNMT-W or Equal	250.00000	EA	\$198.67	\$49,667.50

Comm Code	Manufacturer	Specification	Model #	
31162300				
Hanwha		SBP-160HMW1 + S	BP-300WMW1 + SBP-300KMW	V 1

Extended Description:

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No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
41	3.1.33.2 - Pole Mount: VT-TPLMT-W or Equal	250.00000	EA	\$198.67	\$49,667.50

Comm Code	Manufacturer	Specification	Model #	
31162300				
Hanwha		SBP-160HMW1 + 9	SBP-300WMW1 + SBP-300PMW:	2

Extended Description:

See Attached Specifications

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No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
42	3.1.34.1 - Wall Mount: VT-TP23HR-WM or Equal	250.00000	EA	\$111.58	\$27,895.00

Comm Code	Manufacturer	Specification	Model #	
31162300				
Hanwha			VT-TP23HR-WM	

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No City	WV	No City	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
43	3.1.34.2 -Pendent/Ceiling Pole Mount: VT- TPT20HR-PM or Equal	250.00000	EA	\$111.58	\$27,895.00

Comm Code	Manufacturer	Specification	Model #
31162300			ODD 4501 IMMA - ODD 0000MM44
	Hanwha		SBP-156HMW + SBP-300CMW1

Extended Description:

See Attached Specifications

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	Event Date
1	Questions due by 2:00pm EST	2024-05-30

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	Document Phase	Document Description	Page 24
DCR240000088	Final	Security Cameras & Equipment	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

- 1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.
- 2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.
- **2A. PREBID MEETING:** The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening.

A Non-Mandatory PRE-BID meeting will be held at the following place and time:

A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf. The required attribution of attendance to a single vendor should be addressed during the pre-bid but may occur at any time deemed appropriate by the Agency.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the Prebid will be permitted to sign in but are charged with knowing all matters discussed at the Prebid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

3. VENDOR QUESTION DEADLINE: Vendors may submit questions relating to this Solicitation to the Agency Contact. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted emails should have the solicitation number in the subject line.

Question Submission Deadline:

Submit Questions to:

Email:

4. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Agency on or before the date and time of the bid opening. Any bid received by the Agency staff is considered to be in the possession of the Agency and will not be returned for any reason.

4A. BID SUBMISSION

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Agency.

SEALED BID:
BUYER:
SOLICITATION NUMBER:
BID OPENING DATE:
BID OPENING TIME:
FAX NUMBER:

- 5. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official addendum issued by the Agency. Vendors should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.
- **6. BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.
- 7. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

- **8. EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.
- **9. REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the Agency and must have paid the \$125 fee, if applicable.
- 10. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.
- 11. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Agency staff immediately upon bid opening. The Agency will consider any file that cannot be immediately access and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or removed access restrictions to allow the Agency to print or electronically save documents provided that those documents are viewable by the Agency prior to obtaining the password or removing the access restriction.

- 12. NON-RESPONSIBLE: The Director of Administrative Services reserves the right to reject the bid of any vendor as non-responsible, when the Director determines that the vendor submitting the bid does not have the capability to fully perform or lacks the integrity and reliability to assure good-faith performance.
- 13. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part.
- 14. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, Freedom of Information Act in West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Agency constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Agency will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

GENERAL TERMS AND CONDITIONS:

- 1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Agency and approved as to form by the Attorney General's office, if required, constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.
- **2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.
 - **2.1. "Agency"** or "**Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.
 - **2.2.** "Bid" or "Proposal" means the vendors submitted response to this solicitation.
 - **2.3.** "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.
 - **2.4. "Director"** means the Director of the West Virginia Division of Administrative Services.
 - **2.5. "Award Document"** means the document signed by the Agency that identifies the Vendor as the contract holder.
 - **2.6. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services.
 - **2.7.** "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.
 - **2.8. "Vendor"** or "**Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below: **Term Contract** Initial Contract Term: This Contract becomes effective on the date indicated on the awarded contract and extends for a period of year(s). Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor. Any request for renewal should be delivered to the Agency thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Alternate Renewal Term – This contract may be renewed for year periods or shorter periods successive provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor and Agency. **Delivery Order Limitations:** In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired. Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within days. Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for ______ year(s) thereafter. One Time Purchase: The term of this Contract shall run from the issuance of the Award

Other: See attached.

extend for more than one fiscal year.

4. NOTICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Award Document will be considered notice to proceed.

Document until all of the goods contracted for have been delivered, but in no event will this Contract

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, and Attorney General's office.

6. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Agency by the Vendor as specified below.

PERFORMANCE BOND: The apparent successful Vendor shall provide a performance bond in the amount of 100% of the contract value. The performance bond must be received by the Agency prior to Contract award.

LABOR/MATERIAL PAYMENT BOND: The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be received by the Agency prior to Contract award.

MAINTENANCE BOND: The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Agency prior to Contract award.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after the contract award at the State's sole discretion.
The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.
7. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below and must include the State as an additional insured on each policy prior to Contract award. The insurance coverage identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:	
Commercial General Liability Insurance in at least an amount per occurrence.	of:
Automobile Liability Insurance in at least an amount of: occurrence.	per
Professional/Malpractice/Errors and Omission Insurance in a per occurrence. Notwithstan not required to list the State as an additional insured for this type of the state as an additional insured for the state as a state as	ding the forgoing, Vendor's are
Commercial Crime and Third-Party Fidelity Insurance in an apper occurrence.	amount of:
Cyber Liability Insurance in the amount of:	per occurrence.
Builders Risk Insurance in an amount equal to 100% of the amo	ount of the Contract.
Pollution Insurance in the amount of:	per occurrence.
Aircraft Liability in the amount of:	per occurrence.

8. WORKERS' COMPENSATION INSURANCE: The apparent successful Vendor shall comply with laws relating to workers' compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

9. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

for

Liquidated Damages Contained in the Specifications

- 10. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.
- 11. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.
- 12. PAYMENT IN ARREARS: Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears.
- 13. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer or P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)
- 14. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.
- 15. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- **16. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

- 17. CANCELLATION: The State reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Agency may also cancel any purchase or Contract upon 30 days written notice to the Vendor.
- **18. TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
- 19. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
- **19A. VENUE:** All legal actions for damage brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.
- **20. COMPLIANCE WITH LAWS:** Vendor shall comply with all applicable federal, state, and local laws, regulations, and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances. Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances.
- 21. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
- **22. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract, to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency and the Vendor.
- 23. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.
- 24. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.
- **25. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency and any other government agency or office that may be required to approve such assignments.

- **26. WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defects in material and workmanship.
- 27. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.
- 28. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in: http://www.state.wv.us/admin/purchase/privacy/default.html

28A. CONFIDENTIALITY POLICIES AND INFORMATION SECURITY

ACCOUNTABILITY: The Vendor agrees to adhere to the Confidentiality Policies and Information Accountability Requirements set forth in the link below. At the Agencies sole discretion, the Agency can require the Vendor and its employees to execute the confidentiality agreement. http://www.state.wv.us/admin/purchase/privacy/default.html

29. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of the State of West Virginia and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Agency constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Agency will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

30. LICENSING: In accordance with applicable law, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Agency to verify that the Vendor is licensed and in good standing with the above entities. Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up to date on all state and local obligations as described in this section.

- 31. ANTITRUST: In submitting a bid to, signing a contract with, or accepting an Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.
- 32. VENDOR CERTIFICATIONS: By signing its bid or entering into this Contract, Vendor certifies (1) that its bid or offer was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid or offer for the same material, supplies, equipment or services; (2) that its bid or offer is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this Solicitation in its entirety; understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid or offer also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency. The individual signing this bid or offer on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or offer, or any documents related thereto on

Vendor's behalf: that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

33. **VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing. Vendor shall hold harmless the State and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

- 34. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.
- 35. NO DEBT CERTIFICATION: In accordance with West Virginia Code, the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a Political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the State or a Political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.
- **36. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members, and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.
- **37. REPORTS:** Vendor shall provide the Agency with the following reports identified by a checked box below:

Such reports as the Agency may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Agency.

38. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capital complex based upon results addressed from a criminal background check. The service provider is responsible for any costs associated with the fingerprint based state and federal background inquiry. Upon award the service provider shall submit a list of all persons who will be physically present and working at the Capital complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision. The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capital complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Name, Title)					
(Printed	Name	and	Title)		
(Address))				
(Phone N	lumber) /	(Fax Nu	ımber)		
(E-mail a	ddress)				

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand that this Contract is subject to the provisions of West Virginia code and rules and applicable adopted procedures; therefore, purchases and contracts violating West Virginia Code and rules are void and of no effect.

```
(Company)

Audrey Brown
(Authorized Signature) Representative Name, Title)

(Printed Name & Title of Authorized Representative)

(Date)

(Phone Number) (Fax Number)
```

Revised 04-17-2024 - WVDCR

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification. Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

Addendum No. 1	Addendum No. 6
Addendum No. 2	Addendum No. 7
Addendum No. 3	Addendum No. 8
Addendum No. 4	Addendum No. 9
Addendum No. 5	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

IIS, Inc.			
Company			
Audrey B	rown		
Authorized	Signature		
06-06-2024			
Date			

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

- 1. PURPOSE AND SCOPE: The West Virginia Department of Homeland Security Division of Administrative Services, on behalf of the West Virginia Division of Corrections and Rehabilitation or agency, is soliciting bids to establish an open-end contract for Security Cameras and Equipment. The equipment will be located at WVDCR facilities throughout the State of West Virginia. The cameras, NVR's and related equipment listed in this RFQ are required to maintain our current infrastructure and the equipment must be compatible to support our current infrastructure, with no additional cost to the state.
- **2. DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - **2.1.** "Business Hours" means Monday Friday 8:00 AM to 5:00 PM EST excluding weekends and Federal and State holidays, which are as follows:
 - New Year's Day (January 1)
 - Martin Luther King Day (Third Monday in January)
 - President's Day (Third Monday in February)
 - Memorial Day (Last Monday in May)
 - Juneteenth (June 19)
 - West Virginia Day (June 20)
 - Independence Day (July 4)
 - Labor Day (First Monday in September)
 - Columbus Day (Second Monday in October)
 - Veterans Day (November 11)
 - Thanksgiving (Fourth Thursday in November)
 - Lincoln's Day (Fourth Friday in November)
 - Christmas Day (December 25)
 - **2.2.** "Contract Items" means the list of items identified in Section 3.1 below and on the Pricing Pages.
 - **2.3. "Pricing Page"** means the schedule of prices, estimated order quantity, and totals contained in wvOASIS or attached hereto as Exhibit A, and used to evaluate the Solicitation responses.
 - **2.4.** "Solicitation" means the official notice of an opportunity to supply the State with goods or services that is published by the WV Division of Administrative Services.
 - **2.5. "Pan, Tilt, Zoom (PTZ)"** means a security camera that provides several views of an area and can be controlled remotely from a security control center.

- **2.6. "180 Degree Security Camera"** means a security camera that has 180 degrees of video surveillance.
- **2.7. "360 Degree Security Camera"** means a security camera that has 360 degrees of video surveillance.
- **2.8.** "GB" means gigabyte.
- **2.9.** "MB" means megabyte.
- **2.10. "PoE"** means Power over Ethernet which describes any of several standardized or ad hoc systems which pass electrical power along with data on twisted pair Ethernet cabling.
- **2.11.** "RJ-45" means an 8 pin/8 position plug or jack commonly used to connect computers onto Ethernet based local area networks.
- **2.12.** "NDAA" means The National Defense Authorization Act (NDAA) prohibits the use of equipment manufactured by a limited set of Chinese manufacturers. The NDAA prohibits telecommunications equipment manufactured by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology company or Dahua Technology Company (or any subsidiary or affiliate), or telecommunications of video surveillance services provided by such entities or using such equipment.
- **2.13.** "TRUE Day/Night (infrared sensitive)" A camera that has normal color operation in situations where there is sufficient illumination (day conditions), but where the sensitivity can be increased when there is little light available (night conditions). This is achieved by removing the infrared cut filter required for color rendition. The sensitivity can be further enhanced by integrating a number of fields to improve the signal-to-noise ratio of the camera (this may introduce motion blur).
- **2.14.** "Privacy Masking" means the ability to mask a specific area to prevent it from being viewed in order to comply with privacy laws and particular site requirements.
- **2.15.** "Remote Workstation" A program or an operating system feature that allows a user to connect to a computer in another location, see that computer's desktop and interact with it as if it were local.
- **2.16.** "Graphical User Interface (GUI)" means a GUI lets a user interact with the device/systems with the help of graphical elements or components such as windows,

menus, icons, etc.

3. GENERAL REQUIREMENTS AND QUALIFICATIONS:

- **3.1.** Contract Items and Mandatory Requirements: Vendor must provide the Agency with the Contract Items listed below on a per order or open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.
 - **3.1.1.** Contract Item 1: Vitek -NDAA Compliant 8-Channel Network Video Recorder or NVR (VT-TNR818PFN), or Equal.
 - **3.1.1.1.** Vendor must provide product or service with the following:
 - **3.1.1.1.1.** Product NDAA Compliant IP Plug-N-Play Network Video Recorder with Ethernet connectivity system for video surveillance.
 - **3.1.1.1.2.** Reference Standards: Provide systems that meet or exceed the following publications and organizations' requirements as applicable to the work of this Section.
 - **3.1.1.2.1.** Federal Communications Commission (FCC).
 - **3.1.1.1.2.2.** Restriction of the Use of Certain Hazardous Substances (RoHS).

3.1.1.2. System Description

- 3.1.1.2.1. The Network Video Recorder with Ethernet connectivity must require minimal training for the end-user. The unit must be operated as a conventional multiplexer and VCR with local display monitors for the live and playback viewing experience. Simultaneously, the system must record new images for 1-8 IP cameras, up to 12MP in resolution. It must be an integrated security system capable of time-division multiplexing and real-time recording of multiple cameras and store its digitized and compressed images/videos on local hard drives for fast search and retrieval. The storage must occur locally at the unit or from a remote workstation using a Graphical User Interface (GUI).
- **3.1.1.2.2.** In addition, the network video recorder must have local ethernet input to connect to a PoE Switch for power and control up to 8 IP cameras. The NIC port must connect to a dedicated PoE switch that will power the cameras and offer direct camera network management from the system. The

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- network video recorder must have 8 built-in PoE ports for camera connection with a total of 96 watts.
- 3.1.1.2.3. The system must provide automated alarm handling. Upon receipt of an alarm, the system must automatically change display and record speed, provide relay output operations, PTZ control, and send an email alert. It must be possible to search and retrieve stored video data by date, time, camera ID, and alarm at any given time.
- 3.1.1.2.4. The network video recording system must use H.265S, H.265+, H.265, H.264 compression, including the capability of 1 TB to 12 TB of hard disk drive internal storage. It must have simultaneous HDMI/VGA, with three (3) USB ports and one internal 10/100/1000 Gbps network adapter as standard equipment.

3.1.1.3. Quality Assurance:

3.1.1.3.1. Qualifications: Manufacturers must have a minimum of 20+ years of full-time experience in manufacturing digital video recorder systems with video over IP. The Vendor must provide toll-free technical assistance and support available Monday through Friday, 7:00am – 8:00pm EST and an after–hours support option.

3.1.1.4. Warranty:

- **3.1.1.4.1.** The Vendor must provide a limited four (4) year warranty for the product to be free of material and quality defects.
- **3.1.1.4.2.** Hard-drive warranty must have at a minimum of three (3) years by hard-drive manufacturer.

3.1.1.5. System Components:

- **3.1.1.5.1.** Specified Product: The Network video recorder (NVR) system must function as a standalone unit. It must not require the use of a personal computer, special monitors, or other peripheral devices for either programming or operation. Live and recorded playback of video images must be displayed on conventional CCTV monitors or LCD monitors.
- **3.1.1.5.2.** The NVR must be capable of displaying on-screen text and menus in more than one language. This must be user-selective via the menu system.
- **3.1.1.5.3.** Power Supply: The recorder must be provided with a

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DC48V 2.5amp power supply. To help prevent spikes, surges, harmonics, and other common electrical disturbances phenomena associated with the installation environment an uninterruptible power supply (UPS) is recommended.

3.1.1.5.4. The NVR must have status LEDs to indicate the power and network statuses and the light status indicators must be included in the material.

3.1.1.6. Network:

- **3.1.1.6.1.** The network video recorder must include a NIC for cameras and network.
- **3.1.1.6.2.** One 10/100/1000 Mbps NIC input.
- **3.1.1.6.3.** The total number of camera channels for the recorder is 8.

3.1.1.7. Operations Requirements:

- **3.1.1.7.1.** The NVR must provide up to 8 camera connections.
- **3.1.1.7.2.** The NVR must provide HDMI output at up to 3840 x 2160 resolution.
- **3.1.1.7.3.** The NVR must provide VGA output at up to 1920 x 1080 resolution.
- **3.1.1.7.4.** The NVR must provide up to 4000 x 3000 recording resolution.
- **3.1.1.7.5.** The NVR must use H.265S, H.265+, H.265, H.264 image compression.
- **3.1.1.7.6.** The 8 channel NVR must offer the following recording resolutions:
 - **3.1.1.7.6.1.** 480 x 240: Max 30fps per channel, total 240fps.
 - **3.1.1.7.6.2.** 960 x 240: Max 30fps per channel, total 240fps.
 - **3.1.1.7.6.3.** 960 x 480/720p: Max 30fps per channel, total 240fps.
 - **3.1.1.7.6.4.** 1920 x 1080/1080p: Max 30fps per channel, total 240fps.
 - **3.1.1.7.6.5.** 3840 x 2160/4K: Max 30fps per channel, total 240fps.
 - **3.1.1.7.6.6.** 4000 x 3000: Max 20fps per channel, total 160fps.
- **3.1.1.7.7.** The NVR must provide standard equipment, 3 USB ports,

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- and one internal 10/100/1000 Mbps network adapter.
- **3.1.1.7.8.** The NVR must support operation using an IR remote control, a USB mouse.
- **3.1.1.7.9.** The NVR front panel must include the following items:
 - **3.1.1.7.9.1.** USB port for saving video clips to external storage devices.
 - **3.1.1.7.9.2.** LED status indicators, including indicators for power, network activity, hard drives, and recording.
- **3.1.1.7.10.** The NVR rear panel must include the following items:
 - **3.1.1.7.10.1.** RCA audio input and audio output.
 - **3.1.1.7.10.2.** RS-485 PTZ control interface.
 - **3.1.1.7.10.3.** Alarm inputs and relay outputs, NO/NC.
 - **3.1.1.7.10.4.** Minimum one HDMI monitor output.
 - **3.1.1.7.10.5.** Minimum one VGA monitor output.
 - **3.1.1.7.10.6.** Minimum 2 USB ports.
 - **3.1.1.7.10.7.** RJ-45 10/100/1000 Base-T ethernet port.
 - **3.1.1.7.10.8.** 8 PoE ports.
 - **3.1.1.7.10.9.** DC48v power supply jack.
- **3.1.1.7.11.** The NVR must be preconfigured with a static IP address and subnet mask.
- **3.1.1.7.12.** The NVR must have a log view screen to show the entire system status.
- **3.1.1.7.13.** The NVR must support exception detection to do the following:
 - **3.1.1.7.13.1.** Automatically detect loss of video with onscreen indicators. If video loss is detected during recording, the NVR will warn by an on-screen message, sending a message to the push message server, sounding a buzzer, and switching a relay.
 - **3.1.1.7.13.2.** The NVR shall support alarm sensor in and replay out functions, motion detection, and video loss detection and must include alarm monitoring software.
- **3.1.1.7.14.** The NVR must provide PTZ control including multiple pan, tilt, zoom, and focus speeds, iris control (including return to auto-focus), programming presets and viewing presets.
- **3.1.1.7.15.** The NVR must include a system log that can record and

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display information relating to alarm events, reboots, and other system information. The user must have the ability to export log information.

- **3.1.1.7.16.** The NVR must be equipped with self-diagnostic functions, including disk status.
- **3.1.1.7.17.** The NVR must adjust automatically for Daylight Savings Time changes.
- **3.1.1.7.18.** The NVR must include a user management console that allows the DCR administrator to create, edit, and delete user accounts.

3.1.1.8. Network Video Recorder Features:

- **3.1.1.8.1.** The NVR must support Digital Zoom in a user-defined area in both live and playback.
- **3.1.1.8.2.** The NVR must include a bandwidth control to ensure that images are delivered as quickly as possible within network bandwidth limits.
- **3.1.1.8.3.** The NVR must prevent unauthorized program tampering with at a minimum of twenty (20) users and passwords, with settings including:
 - **3.1.1.8.3.1.** Local user privileges,
 - **3.1.1.8.3.2.** Remote user privileges,
 - **3.1.1.8.3.3.** Local play privileges,
 - **3.1.1.8.3.4.** Remote play privileges,
 - **3.1.1.8.3.5.** Local view privileges,
 - **3.1.1.8.3.6.** Remote view privileges.
 - **3.1.1.8.3.7.** DCR IT Local administrator privileges
 - **3.1.1.8.3.8.** DCR IT Remote administrator privileges
- **3.1.1.8.4.** The NVR must display video in full screen or multi-screen format, with the camera number, a user-definable camera name, and the camera's recording/alarm status displayed for each camera.
- **3.1.1.8.5.** The NVR must support continuous, event, and combined continuous/event recording that is user-configurable by channel and must support manual recording overrides of the recording schedule.
- **3.1.1.8.6.** The NVR must include playback controls that allow the user to playback recorded video forward or backward at multiple speeds.
- **3.1.1.8.7.** The NVR must include backup viewer software that allows

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- the user to playback exported video in a windows media player format on a PC.
- **3.1.1.8.8.** The NVR must allow the user to perform archived searches of recorded video.
- **3.1.1.8.9.** The NVR must support adjustments to the picture resolution, brightness, contrast, color, motion, sensitivity, and images per second during recording, and these settings must be user-configurable by channel.
- **3.1.1.8.10.** The NVR must display status icons on the connected monitors. Camera status icons must be used for each camera. These must be an icon for:
 - **3.1.1.8.10.1.** Alarm detection by the camera channel.
 - **3.1.1.8.10.2.** Recording of the camera channel.
 - **3.1.1.8.10.3.** Motion detection of the camera channel.
 - **3.1.1.8.10.4.** Analytic recording of the camera channel.
- **3.1.1.8.11.** There must be a message (pop-up, log, email and or text) in case of video loss for each channel.
- **3.1.1.8.12.** The NVR must allow the user to select whether the hard drive recording should automatically overwrite data (starting with the oldest data first), or if the recording will stop when the hard drive is filled.
- **3.1.1.8.13.** The NVR must have image quality settings that are adjustable on a per-camera basis by the end-user for all cameras.
- **3.1.1.8.14.** The NVR must support three (3) or five (5) seconds of prealarm recording and must include this buffer at the beginning of all recorded alarms.
- **3.1.1.8.15.** The NVR must support from five (5) seconds to ten (10) minutes of post-alarm recording.
- **3.1.1.8.16.** The NVR must allow the user to customize the record rates manually or automatically per camera for events and motion detections.
- **3.1.1.8.17.** The NVR must allow the installer to set up a mainstream or sub-stream for streaming Video and Audio over Network without affecting the record rate, quality, and recorded video resolution.

3.1.1.9. Multiscreen:

3.1.1.9.1. The NVR must be a pentaplex unit, allowing simultaneous live display, record, playback, backup and remote access at

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the unit with no need for additional hardware.

- **3.1.1.9.2.** The NVR must provide the following displays in live mode: **3.1.1.9.2.1.** Full screen, sequencing, 1/4/6/8/9way.
- **3.1.1.9.3.** The NVR must incorporate the following display options:
 - **3.1.1.9.3.1.** Title display enable/disable, per channel,
 - **3.1.1.9.3.2.** Time/Date formatting,
 - **3.1.1.9.3.3.** Time/Date enable/disable per channel.
- **3.1.1.9.4.** The NVR must provide image update rates for live and record modes of up to 30fps per channel.
- **3.1.1.9.5.** The NVR must have two (2) monitor outputs using the NVR HDMI and VGA independently as follows:
 - **3.1.1.9.5.1.** One digital Multi Screen output using the HDMI connector and must be able to display all cameras live or in sequence mode.
 - **3.1.1.9.5.2.** One analog multi-screen output, using the VGA connector must display all cameras live or in sequence mode.
 - **3.1.1.9.5.3.** All displays must have live, playback, and programming functions on digital and analog.

3.1.1.10. Video motion detection:

- **3.1.1.10.1.** The NVR must support video motion detection, with onscreen indications when motion is occurring.
- **3.1.1.10.2.** Motion detection, which must be treated as an event and follow the event encoding settings.
- **3.1.1.10.3.** The NVR must support an on-screen setup window to determine the optimum sensitivity settings for each camera input and desired motion detection zones.
- **3.1.1.10.4.** The NVR must have zones per camera arranged in a square grid.
- **3.1.1.10.5.** The NVR must have eight levels of sensitivity.

3.1.1.11. Intelligent Analytics (Smart Events)

- **3.1.1.11.1.** The NVR must support the recording of intelligent analytics provided by cameras and must include the following but not limited to:
 - **3.1.1.11.1.1** Perimeter Protection, (line crossing, region entrance/exiting/intrusion) and (Human/motor vehicle/non- motor vehicle

classification).

- 3.1.1.11.2 Target counting line/area, heat map (Human/motor vehicle/non motor vehicle classification).
 3.1.1.11.3 Scene change, video blur and abnormal color detection.
- 3.1.1.11.1.5 Comparison capability of 18 pictures a second3.1.1.11.1.6 Face picture database of 32 libraries (10,000
- Face Pictures),
- **3.1.1.11.1.7** Support successful face recognition alarm and stranger match alarm.

3.1.1.11.1.4 Face detection and face capture,

3.1.1.12 Object Detection with intelligent analytics:

(abandoned/missing).

- **3.1.1.12.1** License Plate Recognition, detection, and plate capture,
- **3.1.1.12.2** Vehicle Plate Database up to 10,000
- **3.1.1.12.3** Support successful plate recognition alarm and strange plate alarm.

3.1.1.13 Alarms:

- **3.1.1.13.1** The NVR must support up to 8 alarm inputs, programmable as normally open or normally closed from within the menus.
- **3.1.1.13.2** The NVR must support up to 4 alarm outputs.
- **3.1.1.13.3** The NVR must have a fully programmable additional audible device or buzzer to alert the user to alarms, motion detection, and video loss occurrences or operation failure.
- 3.1.1.13.4 The NVR must have an automatic full screen associated alarm display that must change as incoming alarms continue to arrive. As additional alarms arrive, the display monitor must sequence between the cameras in the alarm.
- **3.1.1.13.5** The NVR must provide status relays that must link to alarms, motion detections, and video loss.
- **3.1.1.13.6** The NVR must have an alarm history display capable of showing the last 30 alarms received by the system.
- **3.1.1.13.7** The NVR must have an alarm history display capable of retaining logs of up to 5,000 entries.
- **3.1.1.13.8** The NVR must be supplied with push-in wire terminal connections to facilitate easy alarms and other input/output signals.

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3.1.1.14	Ethernet	Communications:	

- **3.1.1.14.1** The NVR must support LAN/WAN Ethernet access.
- **3.1.1.14.2** The NVR must support Ethernet bandwidths of 10/100/1000 Mbps.
- **3.1.1.14.3** The NVR must support simultaneous Ethernet access by not less than 64 workstations connected to the LAN/WAN.
- 3.1.1.14.4 The NVR must be provided with a GUI software for remote playback and viewing to support Windows 7, 8, 10, and 11 operating systems and full searching capabilities. It must be possible to remotely set up the NVR unit using the remote viewing interface after enabling its P2P feature or establishing remote access to the local network.
- 3.1.1.14.5 The NVR must provide secure remote operation and configuration through remote viewing software, a web client, and mobile device applications (Apple & Android).
- **3.1.1.15** The NVR's remote viewing software must include, at a minimum the following:
 - **3.1.1.15.1** Viewing live video,
 - **3.1.1.15.2** Searching recorded video,
 - **3.1.1.15.3** Exporting still images (in JPEG format) and video clips (in MP4 format).
 - **3.1.1.15.4** Controlling PTZ cameras.
 - **3.1.1.15.5** The NVR must not stop recording during any Ethernet access.
- **3.1.1.16** The NVR must allow the user full programming of Ethernet parameters, including the following:
 - **3.1.1.16.1** DHCP (enable/disable),
 - **3.1.1.16.2** DDNS,
 - **3.1.1.16.3** IP address Static
 - **3.1.1.16.4** Default gateway,
 - **3.1.1.16.5** Subnet mask,
 - **3.1.1.16.6** HTTP port,
 - **3.1.1.16.7** HTTPS port,
 - **3.1.1.16.8** Server port,
 - **3.1.1.16.9** RTSP port,
 - **3.1.1.16.10** FTP Server address, ports, username and password.

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3.1.1.17 Archiving:

- **3.1.1.17.1** The NVR must support the archiving of recorded video and audio to a USB storage device.
- **3.1.1.17.2** The NVR must have an option to select the type of archiving device connected when interfaced with the devices specified or approved equals.
- **3.1.1.17.3** The NVR must support selective archiving.
- **3.1.1.17.4** The NVR must have an on-screen progress indicator when selective archiving or restoration operations are accessing the archive device.
- 3.1.1.17.5 The NVR must have an option to backup/archive data on a schedule and must be able to backup/archive all video-audio footage daily, weekly, and monthly on to a backup storage solution and run on an automatic schedule (must have these options available: USB, E-Sata, Network and Cloud). With restore features, daily, weekly, and monthly.
- **3.1.1.17.6** The NVR must have automatic archiving, by a scheduling, dates, times.

3.1.1.18 Recorder Hard Drives:

- **3.1.1.18.1** The NVR must record video on a hard drive. No video tape or videotape recorders will be permitted as a replacement for the hard drives.
- **3.1.1.18.2** The NVR must support the following hard disk drive sizes:
 - **3.1.1.18.2.1** 1TB
 - **3.1.1.18.2.2** 2TB
 - **3.1.1.18.2.3** 3TB
 - **3.1.1.18.2.4** 4TB
 - **3.1.1.18.2.5** 6TB
 - **3.1.1.18.2.6** 8TB
 - **3.1.1.18.2.7** 10TB
 - **3.1.1.18.2.8** 12TB
- **3.1.1.18.3** The NVR must offer the following internal hard disk drive (HDD) storage options:
 - **3.1.1.18.3.1** The NVR must support 1 x internal 3.5" HDD bays.
 - **3.1.1.18.3.2** The NVR must support max 12TB per HDD.

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- **3.1.1.18.4** Minimum storage retention with 24 hours of nonstop recording.
 - **3.1.1.18.4.1** Minimum 15fps @ 5mp for fixed indoor and outdoor cameras.
 - **3.1.1.18.4.2** Minimum 15fps @ 6mp for fisheyes.
 - **3.1.1.18.4.3** Minimum 15fps @ 12mp for multi-sensor 180 cameras.
 - 3.1.1.18.4.4 Minimum 15fps @ 12mp for multi-sensor 180 camera, minimum 15fps @ 8mp for PTZ cameras.
- **3.1.1.18.5** Minimum Storage
 - **3.1.1.18.5.1** Minimum Storage for 30 days
 - 3.1.1.18.5.1.1 Configuration 1 x 6TB surveillance grade HDD.
 - 3.1.1.18.5.1.2 Expandable up to 60 days.
 - 3.1.1.18.5.1.3 Configuration 1 x 12TB surveillance grade HDD.
- **3.1.1.18.6** The utilized hard drives must support the latest SATA technology, including HDD status.
- **3.1.1.18.7** The utilized hard drives must be specifically developed for the Digital Video Archiving Industry.
- **3.1.1.19** System Hardware:
 - **3.1.1.19.1** The network video recorder must have the following mechanical specifications:
 - **3.1.1.19.1.1** Unit Dimensions (W x D x H): 11.81" x 9.80" x 1.90" (300mm x 249mm x 48.1mm).
 - 3.1.1.19.1.2 Housing: Steel chassis.
 - **3.1.1.19.1.3** Finish: Black matte finish.
 - **3.1.1.19.2** The digital video recorder must have the following electrical specifications:
 - **3.1.1.19.2.1** Power Supply: DC48V/2.5A.
 - **3.1.1.19.2.2** Power Consumption: 20W (without HDD and PoE power supply).
 - **3.1.1.19.3** The network video recorder must be designed to meet the following environmental conditions:
 - **3.1.1.19.3.1** Operating Temperature: $50^{\circ} \text{ F}(10^{\circ} \text{ C})$ to $122^{\circ} \text{ F}(50^{\circ} \text{ C})$.
 - **3.1.1.19.3.2** Relative Humidity: 10% to 90% noncondensing.

3.1.1.20 Vendor Support:

- 3.1.1.20.1 The Vendor must provide customer service, pre-sales application assistance, after-sales technical assistance, access to online technical support, and online training using Web conferencing and downloadable training module in a .PDF format.
- 3.1.1.20.2 The Vendor must provide technical assistance and support using a toll-free telephone number at no extra charge Monday through Friday 7:00am to 8:00pm EST (Excluding major holidays)
- **3.1.1.20.3** The Vendor must provide technical assistance options for after-hours (after 5pm to 10pm EST, weekends, and holidays).
- 3.1.1.20.4 The Vendor must provide technical assistance/support options for after-hours (after 5pm to 10pm EST, weekends, and holidays).
- 3.1.1.20.5 Vendor must provide administrative training to DCR IT Support, this includes but not limited to; navigations, updating cameras, basic troubleshooting, upgrading and reinstalling software and configuration of external storage.
- **3.1.2** Contract Item 2: Vitek NDAA Compliant 16-Channel Network Video Recorder or NVR (VT-TNR1646PFN), or Equal.
 - **3.1.2.11** Vendor must provide product or service with the following:
 - **3.1.2.11.1** Product must be NDAA Compliant IP Plug-N-Play Network Video Recorder with Ethernet connectivity system for video surveillance.
 - 3.1.2.11.2 Reference Standards: Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section.
 3.1.2.11.2.1 Federal Communications Commission (FCC).
 - **3.1.2.11.2.2**Restriction of the Use of certain hazardous substances (RoHS).

3.1.2.12 System Description:

3.1.2.12.1 The network video recorder with ethernet connectivity must require minimal training for the end-user. The unit must be operated as a conventional multiplexer and VCR with local display monitors for live and playback viewing.

Simultaneously, the system must record continues new images for 1-16 IP cameras, up to 12mp in resolution. It must be an integrated security system capable of time-division multiplexing and real-time recording of multiple cameras and store its digitized and compressed images/videos on local hard drives for fast search and retrieval. The storage must occur locally at the unit or from a remote workstation using a GUI.

- 3.1.2.12.2 In addition, the network video recorder must also have local ethernet input to connect to a PoE Switch for power and control up to 16 IP cameras. The NIC port must connect to a dedicated PoE switch that will power the cameras and offer direct camera network management from the system. The network video recorder must have 16 built-in PoE ports for camera connection with a total of 150 watts.
- 3.1.2.12.3 The system must provide automated alarm handling. Upon receipt of an alarm, the system must automatically change the display and record speed, provide relay output operation, PTZ control, and send an email alert. It must be possible to search and retrieve stored video data by date, time, camera ID, and alarm at any given time.
- 3.1.2.12.4 The network video recording system must use H.265, H.265+, H.264, H.264+ compression, including the capability of 1TB to 48TB of hard disk drive internal storage. It must have simultaneous HDMI/VGA, with three (3) USB ports and two (2) internal 10/100/1000 Gbps network adapters as standard equipment.

3.1.2.13 Quality Assurance:

3.1.2.13.1 Qualifications: Manufacturers must have a minimum of 20+ years of full-time experience in manufacturing and maintaining digital video recorder systems with video over IP. The Vendor must provide toll-free technical assistance and support available Monday through Friday, 7:00am EST to 8:00pm EST and after-hours support options.

3.1.2.14 Warranty:

3.1.2.14.1 The Vendor must provide a limited four (4) year warranty for the product to be free of material and quality defects.

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3.1.2.14.2 Hard drives must have at least a three (3) year warranty from the hard drive manufacturer.

3.1.2.15 System Components:

- 3.1.2.15.1 Specified Product: The network video recorder (NVR) system must function as a standalone unit. It must not require the use of a personal computer, special monitors, or other peripheral devices for either programming or operation. Live and recorded playback of video images must be displayed on conventional CCTV monitors or LCD monitors.
- **3.1.2.15.2** The NVR must be capable of displaying on-screen text and menus in more than one language. This must be user-selectable via the menu system.
- 3.1.2.15.3 Power Supply: The recorder must be provided with a built-in ATX 300W power supply. To help prevent spikes, surges, harmonics, and other common electrical disturbance phenomena associated with the installation environment an uninterruptible power supply (UPS) is recommended.
- **3.1.2.15.4** The NVR must have status LEDs to indicate the power and network statuses and the light status indicators must be included in the material.

3.1.2.16 Network:

- **3.1.2.16.1** The network video recorder must include a second NIC for cameras.
- **3.1.2.16.2** Dual 10/100/1000 Mbps NIC inputs.
- **3.1.2.16.3** The total number of camera channels for the recorder is 16.

3.1.2.17 Operational Requirements:

- **3.1.2.17.1** The NVR must provide up to 16 camera connections.
- **3.1.2.17.2** The NVR must provide HDMI-1 output at up to 3840 x 2160 resolution.
- **3.1.2.17.3** The NVR must provide HDMI-2 output at up to 1920 x 1080 resolution.
- **3.1.2.17.4** The NVR must provide VGA output at up to 1920 x 1080 resolution.
- **3.1.2.17.5** The NVR must provide up to 4000 x 30000 recording resolution.
- **3.1.2.17.6** The NVR must use H.265, H.265+, H.264+, H.264 image

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compression.

- **3.1.2.17.7** The 16 channel NVR must offer the following recording resolutions:
 - **3.1.2.17.7.1** 480 x 240: Maximum 30fps per channel, total 960fps.
 - **3.1.2.17.7.2** 960 x 240: Maximum 30fps per channel, total 960fps.
 - **3.1.2.17.7.3** 960 x 480/720p: Maximum 30fps per channel, total 960fps.
 - **3.1.2.17.7.4** 1920 x 1080/1080p: Maximum 30fps per channel, total 960fps.
 - **3.1.2.17.7.5** 3840 x 2160/4K: Maximum 30fps per channel, total 960fps.
 - **3.1.2.17.7.6** 4000 x 3000: Maximum 20fps per channel, total 640fps.
- **3.1.2.18** The NVR must provide standard equipment, three (3) USB ports, and two (2) internal 10/100/1000 Mbps network adapters. The NVR must support operation using an IR remote control, A USB mouse.
 - **3.1.2.18.1** The NVR front panel must include the following items:
 - **3.1.2.18.1.1** USB port for saving video clips to external storage devices.
 - **3.1.2.18.1.2** LED status indicators, including indicators for power, network activity, hard drives, and recording.
 - **3.1.2.18.2** The NVR rear panel must include the following items:
 - **3.1.2.8.3.1.** RCA audio input and audio output.
 - **3.1.2.8.3.2.** RS-485 PTZ control interface.
 - **3.1.2.8.3.3.** Alarm inputs and relay outputs, NO/NC.
 - **3.1.2.8.3.4.** HDMI1 monitor output.
 - **3.1.2.8.3.5.** HDMI2 secondary monitor output.
 - **3.1.2.8.3.6.** VGA monitor output.
 - **3.1.2.8.3.7.** 2 USB ports.
 - **3.1.2.8.3.8.** 2 RJ-45 10/100/1000 Base T Ethernet ports.
 - **3.1.2.8.3.9.** 16 PoE ports.
 - **3.1.2.8.3.10.** AC Power supply jack.
 - **3.1.2.8.3.11.** One (1) eSATA port.
- **3.1.2.19** The NVR must be preconfigured with a static IP address and subnet mask for quick integration within existing IT structures to avoid conflicts.

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- **3.1.2.20** The NVR must have log view screens to show the entire system status immediately.
- **3.1.2.21** The NVR must support exception detection to do the following:
 - 3.1.2.21.1 Automatically detect loss of video with on-screen indicators. If video loss is detected during recording, the NVR will warn by an on-screen message, sending a message to the push message service, sounding a buzzer, and switching a relay.
 - 3.1.2.21.2 The NVR must be 2.75" in height (70mm) and capable of being rack-mounted (EIA 19-inch standard), with rack mount hardware that the manufacturer designed to support the units.
 - 3.1.2.21.3 The NVR must provide PTZ control including multiple pan, tilt, zoom, and focus speeds, iris control (including return to auto-focus), programming presets, and viewing presets.
 - 3.1.2.21.4 The NVR must support alarm sensors in and relay out functions, motion detection, and video loss detection and must include alarm monitoring software.
 - 3.1.2.21.5 The NVR must include a system log that can record and display information relating to alarm events, reboots, and other system information. The user must have the ability to export log information.
 - **3.1.2.21.6** The NVR must be equipped with self-diagnostic functions, including disk status.
 - 3.1.2.21.7 The NVR must adjust automatically for Daylight Savings Time changes.
 - **3.1.2.21.8** The NVR must include a user management console that allows the administrator to create, edit, and delete user accounts.

3.1.2.22 Network Video Recorder Features:

- **3.1.2.22.1** The NVR must support Digital Zoom in a user-defined area in both live and playback.
- **3.1.2.22.2** The NVR must include a bandwidth control to ensure that images are delivered as quickly as possible within network bandwidth limits.
- 3.1.2.22.3 The NVR must prevent unauthorized program tampering with at maximum twenty (20) users and passwords, with

settings including:

3.1.2.22.3.1	Local u	ser privileges.
0.1.2.2.2.0.1	Local a	bor privileges.

- **3.1.2.12.3.2.** Remote user privileges.
- **3.1.2.12.3.3.** Local play privileges.
- **3.1.2.12.3.4.** Remote play privileges.
- 3.1.2.12.3.5. Local view privileges.
- **3.1.2.12.3.6.** Remote view privileges.
- **3.1.2.12.3.7.** DCR IT Local administrator privileges.
- **3.1.2.12.3.8.** DCR IT Remote administrator privileges .
- 3.1.2.23 The NVR must display video in full screen or multi-screen format, with the camera number, a user-definable camera name, and the camera's recording/alarm status displayed for each camera.
- **3.1.2.24** The NVR must support continuous events, and combined continuous event recordings that is user-configurable by channel and must support manual recording overrides of the recording schedule.
- **3.1.2.25** The NVR must include playback controls that allow the user to playback recorded video forward or backwards at multiple speeds.
- **3.1.2.26** The NVR must include backup viewer software that allows the user to playback exported video in a windows media player format on a PC.
- **3.1.2.27** The NVR must allow the user to perform archived searches of recorded video.
- **3.1.2.28** The NVR must support adjustments to the picture resolution, brightness, color, motion, sensitivity, and images per second during recording, and these settings must be user-configurable by channel.
- **3.1.2.29** The NVR must display status icons on the connected monitors. Camera status icons must be used for each camera. There must be an icon for:
 - **3.1.2.19.1.** Alarm detection by the camera channel.
 - **3.1.2.19.2.** Recording of the camera channel.
 - **3.1.2.19.3.** Motion detection by the camera channel.
 - **3.1.2.19.4.** Analytic recording of the camera channel.
- **3.1.2.30** There will be a message (pop-up, log, email and or text) in case of video loss for each channel.

- 3.1.2.31 The NVR must allow the user to select whether the hard drive recording should automatically overwrite data (starting with the oldest data first), or if the recording will stop when the hard drive is filled.
- **3.1.2.32** The NVR must have image quality settings that are adjustable on a per camera basis by the end-user for all cameras.
- **3.1.2.33** The NVR must support three (3) or five (5) seconds of pre-alarm recording and must include this buffer at the beginning of all recorded alarms.
- **3.1.2.34** The NVR must support from five (5) seconds to ten (10) minutes of post alarm recordings.
 - **3.1.2.34.1** The NVR must allow the user to customize the record rates manually or automatically per camera for events and motion detection.
 - 3.1.2.34.2 The NVR must allow the installer to set up a mainstream or sub-stream for Video and Audio over Network without affecting the recording rate, quality, and recorded video resolution.

3.1.2.35 Multiscreen:

- **3.1.2.35.1** The NVR must be a pentaplex unit, allowing simultaneous live display, record playback, backup, and remote access at the unit with no need for additional hardware.
- **3.1.2.35.2** The NVR must provide the following displays in live mode:
 - **3.1.2.35.2.1** Full screen, Sequencing, 1/4/6/8/9/13/16 way.
 - **3.1.2.35.2.2** The NVR must incorporate the following display options:
 - **3.1.2.35.2.3** Title display enable/disable, per channel.
 - **3.1.2.35.2.4** Time/date formatting,
 - **3.1.2.35.2.5** Time/date enable/disable, per channel.
- 3.1.2.35.3 The NVR must provide image update rates for live and record modes of up to 30fps per channel.
- 3.1.2.35.4 The NVR must have three (3) monitor outputs using the NVR (2) HDMI and (1) VGA independently as follows:
 - 3.1.2.35.4.1 Two (2) digital Multi Screen output using the HDMI connector (1 & 2) and must be able to display all cameras live or in sequence mode.

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3.1.2.35.4.2	HDMI connector (HDMI 2) must display
	customizable layout and view for
	secondary view with sequence mode.

- **3.1.2.35.4.3** One (1) analog Multi Screen output using the VGA connector must display all cameras live or in sequence mode.
- **3.1.2.35.4.4** All displays must display live, playback, and programming functions on digital and analog.

3.1.2.36 Video motion detection:

- **3.1.2.36.1** The NVR must support video motion detection, with onscreen indications when motion is occurring.
- **3.1.2.36.2** Motion detection, which must be treated as an event and follow the event encoding settings.
- **3.1.2.36.3** The NVR must support an on-screen setup window to determine the optimum sensitivity settings for each camera input and desired motion detection zones.
- **3.1.2.36.4** The NVR must have zones per camera arranged in a square grid.
- **3.1.2.36.5** The NVR must have eight levels of sensitivity.

3.1.2.37 Intelligent Analytics (Smart Events)

- **3.1.2.37.1** The NVR must support the recording of intelligent analytics provided by cameras and must include the following but not limited to:
 - **3.1.2.37.1.1** Perimeter Protection, (line crossing, region entrance/exiting/intrusion) and (Human/motor vehicle/non- motor vehicle classification).
 - **3.1.2.37.1.2** Target counting line/area, heat map (Human/motor vehicle/non motor vehicle classification).
 - **3.1.2.37.1.3** Exception detection, scene change, video blur and abnormal color.
- **3.1.2.37.2** Face detection and face capture,
 - **3.1.2.37.2.1** Comparison capability of 18 pictures a second.
 - **3.1.2.37.2.2** Face picture database of 32 libraries (10,000 Face Pictures),
 - **3.1.2.37.2.3** Support successful face recognition alarm and

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3.1.2.37.3

stranger match alarm.

Object Detection with intelligent analytics;

	3.1.2.37.3	Abandoned/Missing.		
	3.1.2.37.4	License Plate Recognition, detection, and plate capture, 3.1.2.27.7.1. Vehicle Plate Database up to 10,000, 3.1.2.27.7.2. Support successful plate recognition and strange place alarm.		
3.1.2.38	Alarms:			
	3.1.2.38.1	The NVR must support up to 16 alarm inputs, programmable as normally open or normally closed from within the menus.		
	3.1.2.38.2	The NVR must support up to 4 alarm outputs.		
	3.1.2.38.3	The NVR must have a fully programmable additional audible device or buzzer to alert the user to alarms, motion detection, and video loss occurrences or operation failure.		
	3.1.2.38.4	The NVR must have an automatic full screen associated alarm display that must change as incoming alarms continue to arrive. As additional alarms arrive, the display monitor must sequence between the cameras in the alarm.		
	3.1.2.38.5	The NVR must provide status relays that must link to alarms, motion detections, and video loss.		
	3.1.2.38.6	The NVR must have an alarm history display capable of showing the last 30 alarms received by the system.		
	3.1.2.38.7	The NVR must have an alarm history display capable of retaining logs of up to 5,000 entries.		
	3.1.2.38.8	The NVR must be supplied with push-in wire terminal connections to facilitate easy alarms and other input/output signals.		
2 1 2 20	E41 4 C .			

3.1.2.39 Ethernet Communications:

- **3.1.2.39.1** The NVR must support LAN/WAN Ethernet access.
- **3.1.2.39.2** The NVR must support Ethernet bandwidths of 10/100/1000 Mbps.
- 3.1.2.39.3 The NVR must support simultaneous Ethernet access by not less than 64 workstations connected to the LAN/WAN.
- 3.1.2.39.4 The NVR must be provided with GUI software for remote playback and viewing to support Windows 7, 8, 10, and 11 operating systems and full searching capabilities. It must be possible to remotely set up the NVR unit using the remote viewing interface after enabling its P2P feature or

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establishing remote access to the local network.

- 3.1.2.39.5 The NVR must provide remote operation and configuration through remote viewing software, a web client, and mobile device applications (Apple & Android).
- **3.1.2.40** The NVR's remote viewing software must include, at a minimum the following:
 - **3.1.2.40.1** Viewing live video,
 - **3.1.2.40.2** Searching recorded video,
 - **3.1.2.40.3** Exporting still images (in JPEG format) and video clips (in MP4 format).
 - **3.1.2.40.4** Controlling PTZ cameras.
 - **3.1.2.40.5** The NVR must not stop recording during any Ethernet access.
- **3.1.2.41** The NVR must allow the user full programming of Ethernet parameters, including the following:
 - 3.1.2.41.1 DHCP (enable/disable),
 - 3.1.2.41.2 DDNS,
 - **3.1.2.41.3** IP address Static
 - **3.1.2.41.4** Default gateway,
 - **3.1.2.41.5** Subnet mask,
 - **3.1.2.41.6** HTTP port,
 - **3.1.2.41.7** HTTPS port,
 - **3.1.2.41.8** Server port,
 - **3.1.2.41.9** RTSP port,
 - **3.1.2.41.10** FTP Server address, ports, username, and password.
- **3.1.2.42** Archiving:
 - **3.1.2.42.1** The NVR must support the archiving of recorded video and audio to a USB storage device.
 - 3.1.2.42.2 The NVR must have an option to select the type of archiving device connected when interfaced with the devices specified or approved equals.
 - **3.1.2.42.3** The NVR must support selective archiving.
 - **3.1.2.42.4** The NVR must have an on-screen progress indicator when selective archiving or restoration operations are accessing the archive device.
 - 3.1.2.42.5 The NVR must have an option to backup/archive data on a schedule and must be able to backup/archive all video-audio footage daily, weekly, monthly on to a backup

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storage solution and run on an automatic schedule (must have these options available: USB, E-Sata, Network and Cloud). With restore features daily, weekly, and monthly.

3.1.2.42.6 The NVR must have automatic archiving, by a scheduling, dates, times.

3.1.2.43 Recorder Hard Drives:

- **3.1.2.43.1** The NVR must record video on a hard drive. No video tape or videotape recorders will be permitted as a replacement for the hard drives.
- **3.1.2.43.2** The NVR must support the following hard disk drive sizes:
 - **3.1.2.43.2.1** 1TB
 - **3.1.2.43.2.2** 2TB
 - **3.1.2.43.2.3** 3TB
 - **3.1.2.43.2.4** 4TB
 - **3.1.2.43.2.5** 6TB
 - **3.1.2.43.2.6** 8TB
 - **3.1.2.43.2.7** 10TB
 - **3.1.2.43.2.8** 12TB
- **3.1.2.43.3** The NVR must offer the following internal hard disk drive (HDD) storage options:
 - 3.1.2.43.3.1 The NVR must support 4 x internal 3.5" HDD bays.
 - **3.1.2.43.3.2** The NVR must support max 12TB per HDD.
 - **3.1.2.43.3.3** Minimum storage retention with 24 hours of nonstop recording.

3.1.2.43.4 Case:

- **3.1.2.43.4.1** Minimum 15fps @ 5mp for fixed indoor and outdoor cameras,
- **3.1.2.43.4.2** Minimum 15fps @ 6mp for fisheyes.
- **3.1.2.43.4.3** Minimum 15fps @ 12mp for multi-sensor 180 cameras.
- 3.1.2.43.4.4 Minimum 15fps @ 12mp for multi-sensor 180 camera, minimum 15fps @ 8mp for PTZ cameras.

3.1.2.43.5 Minimum Storage:

- **3.1.2.43.5.1** Minimum Storage for 30 days.
- **3.1.2.43.5.2** Configuration 2 x 10TB surveillance grade HDD.

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- **3.1.2.43.5.3** Expandable up to 60 days.
- **3.1.2.43.5.4** Configuration 4 x 10TB surveillance grade HDD.
- **3.1.2.43.5.5** The utilized hard drives must support the latest SATA technology, including HDD status.
- 3.1.2.43.5.6 The utilized hard drives must be specifically developed for the Digital Video Archiving Industry.

3.1.2.44 System Hardware:

- **3.1.2.44.1** The network video recorder must have the following mechanical specifications:
 - **3.1.2.44.1.1** Unit Dimensions (W x D x H): 17.32" x 15.35" x 2.75" (440mm x 390mm x 70mm).
- **3.1.2.44.2** Construction:
 - **3.1.2.44.2.1** Housing: Steel chassis.
 - 3.1.2.44.2.2 Finish: Black matte finish.
- **3.1.2.44.3** The digital video recorder must have the following electrical specifications:
 - **3.1.2.44.3.1** Power Supply: ATX 300W.
 - **3.1.2.44.3.2** Power Consumption: 20W (without HDD and PoE power supply).
- **3.1.2.44.4** The network video recorder must be designed to meet the following environmental conditions:
 - **3.1.2.44.4.1** Operating Temperature: $50^{\circ} \text{ F}(10^{\circ} \text{ C})$ to $122^{\circ} \text{ F}(50^{\circ} \text{ C})$.
 - **3.1.2.44.4.2** Relative Humidity: 10% to 90% noncondensing.

3.1.2.45 Vendor Support:

- **3.1.2.45.1** The Vendor must provide customer service, pre-sales application assistance, after-sales technical assistance, access to online technical support, and online training using Web conferencing and downloadable training module in a .PDF format.
- **3.1.2.45.2** The Vendor must provide technical assistance and support

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- using a toll-free telephone number at no extra charge Monday through Friday – 7:00am to 8:00pm EST (Excluding major holidays).
- **3.1.2.45.3** The Vendor must provide technical assistance options for after-hours (after 5pm to 10pm EST, weekends, and holidays).
- 3.1.2.45.4 Must provide administrative training to DCR IT Support, this includes but is not limited to; navigation, updating cameras, basic troubleshooting, upgrading and reinstalling software and configuration of external storage.
- **3.1.3** Contract Item 3: Vitek NDAA Compliant 32-Channel Network Video Recorder or NVR (VT-TNR3280E1N), or Equal.
 - **3.1.3.11** Vendor must provide product or service with the following:
 - **3.1.3.11.1** Product must be NDAA Compliant IP Plug-N-Play Network Video Recorder with Ethernet connectivity system for video surveillance.
 - **3.1.3.12** Reference Standards: Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section.
 - **3.1.3.12.1** Federal Communications Commission (FCC).
 - **3.1.3.12.2** Restriction of the Use of certain hazardous substances (RoHS).

3.1.3.13 System Description:

- 3.1.3.13.1 The network video recorder with ethernet connectivity must require minimal training for the end-user. The unit must be operated as a conventional multiplexer and VCR with local display monitors for live and playback viewing.

 Simultaneously, the system continues to record new images for 1-32 IP cameras, up to 12mp in resolution. It must be an integrated security system capable of time-division multiplexing and real-time recording of multiple cameras, storing their digitized and compressed images on local hard drives for fast search and retrieval either locally at the unit or from a remote workstation using a GUI.
- **3.1.3.13.2** The network video recorder must also have local ethernet to connect to a PoE Switch for power and control up to 32 IP cameras. The NIC port must connect to a dedicated PoE

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- switch that will power the cameras and offer direct camera network management from the system.
- 3.1.3.13.3 The system must provide automated alarm handling. Upon control and alarm, the system must automatically change the display and record speed, provide relay output operation, PTZ control, and send an email alert. It must be possible to search and retrieve stored video data by date, time, camera ID, and alarm at any given time.
- 3.1.3.13.4 The network video recording system must use H.265S, H.265+, H.265, H.264 compression, including the capability of 1TB to 96TB of hard disk drive internal storage. It must have simultaneous HDMI/VGA, with three (3) USB ports and two (2) internal 10/100/1000 Gbps network adapters as standard equipment.

3.1.3.14 Quality Assurance:

3.1.3.14.1 Qualifications: Manufacturers must have a minimum of 20+ years of full-time experience in manufacturing and maintaining digital video recorder systems with video over IP. The Vendor must provide toll-free technical assistance and support available Monday through Friday, 7:00am EST to 8:00pm EST and after-hours support options.

3.1.3.15 Warranty:

- **3.1.3.15.1** The Vendor must provide a limited four (4) year warranty for the product to be free of material and quality defects.
- **3.1.3.15.2** Hard drives must have a minimum of three (3) year warranty from the hard drive manufacturer.

3.1.3.16 System Components:

- **3.1.3.16.1** Specified Product: The network video recorder (NVR) system must function as a standalone unit. It must not require the use of a personal computer, special monitors, or other peripheral devices for either programming or operation. Live and recorded playback of video images must be displayed on conventional CCTV monitors or LCD monitors.
- **3.1.3.16.2** The NVR must be capable of displaying on-screen text and menus in more than one language. This must be user-selectable via the menu system.

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3.1.3.16.3 The NVR must have status LEDs to indicate the power and network statuses and the light status indicators must be included in the material.

3.1.3.17 Network:

- **3.1.3.17.1** The network video recorder must include a second NIC for cameras.
- **3.1.3.17.2** Dual 10/100/1000 Mbps NIC inputs.
- **3.1.3.17.3** The total number of camera channels for the recorder is 32.

3.1.3.18 Operational Requirements:

- **3.1.3.18.1** The NVR must provide up to 32 camera connections.
- **3.1.3.18.2** The NVR must provide HDMI1 output at up to 3840 x 2160 resolution.
- **3.1.3.18.3** The NVR must provide HDMI2 output at up to 1920 x 1080 resolution.
- **3.1.3.18.4** The NVR must provide VGA output at up to 1920 x 1080 resolution.
- **3.1.3.18.5** The NVR must use H.265, H.265+, H265S, H.264 image compression.
- **3.1.3.18.6** The 32-Channel NVR must offer the following recording resolutions:
 - **3.1.3.18.6.1** 480 x 240: Maximum 30fps per channel, total 960fps.
 - **3.1.3.18.6.2** 960 x 240: Maximum 30fps per channel, total 960fps.
 - **3.1.3.18.6.3** 960 x 480/720p: Maximum 30fps per channel, total 960fps.
 - **3.1.3.18.6.4** 1920 x 1080/1080p: Maximum 30fps per channel, total 960fps.
 - **3.1.3.18.6.5** 3840 x 2160/4K: Maximum 30fps per channel, total 960fps.
 - **3.1.3.18.6.6** 4000 x 3000: Maximum 20fps per channel, total 640fps.
- **3.1.3.18.7** The NVR must provide standard equipment, three (3) USB ports, and two (2) internal 10/100/1000 Mbps network adapters.
- **3.1.3.18.8** The NVR must support operation using an IR remote control, A USB mouse.
- **3.1.3.18.9** The NVR front panel must include the following items:

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- **3.1.3.18.9.1** USB port for saving video clips to external storage devices.
- **3.1.3.18.9.2** LED status indicators, including indicators for power, network activity, hard drives, and recording.
- **3.1.3.18.9.3** Must have push button controls.
- **3.1.3.18.10** The NVR rear panel must include the following items:
 - 3.1.3.18.10.1 RCA audio input and audio output.
 - **3.1.3.18.10.2** RS-485 PTZ control interface.
 - **3.1.3.8.10.3.** Alarm inputs and relay outputs, NO/NC.
 - **3.1.3.8.10.4.** HDMI1 monitor output.
 - **3.1.3.8.10.5.** HDMI2 secondary monitor output.
 - **3.1.3.8.10.6.** FVGA monitor output.
 - **3.1.3.8.10.7.** 2 USB ports.
 - **3.1.3.8.10.8.** 2 RJ-45 10/100/1000 Base T Ethernet ports.
 - **3.1.3.8.10.9.** AC Power supply jack.
 - **3.1.3.8.10.10.** One (1) eSATA port.
 - **3.1.3.8.10.11.** 16 channel alarm in + 4 alarm out
- **3.1.3.18.11** The NVR must be preconfigured with a static IP address and subnet mask for quick integration within existing IT structures to avoid conflicts.
- **3.1.3.18.12** The NVR must have log view screens to show the entire system status immediately.
- **3.1.3.18.13** The NVR must support exception detection to do the following:
 - **3.1.3.18.13.1** Automatically detect loss of video with onscreen indicators. If video loss is detected during recording, the NVR will warn by an onscreen message, sending a message to the push message service, sounding a buzzer, and switching a relay.
- **3.1.3.18.14** The NVR must be 3.54" in height (70mm) and capable of being rack-mounted (EIA 19-inch standard), with rack mount hardware that the manufacturer designed to support the units.
- **3.1.3.18.15** The NVR must provide PTZ control including multiple pans, tilt, zoom, and focus speeds, iris control (including return to auto-focus), programming presets, and viewing presets.
- **3.1.3.18.16** The NVR must support alarm sensors in and relay out

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functions, motion detection, and video loss detection and must include alarm monitoring software.

- **3.1.3.18.17** The NVR must include a system log that can record and display information relating to alarm events, reboots, and other system information. The user must have the ability to export log information.
- **3.1.3.18.18** The NVR must be equipped with self-diagnostic functions, including disk status.
- **3.1.3.18.19** The NVR must adjust automatically for Daylight Savings Time changes.
- **3.1.3.18.20** The NVR must include a user management console that allows the administrator to create, edit, and delete user accounts.

3.1.3.19 Network Video Recorder Features:

- **3.1.3.19.1** The NVR must support Digital Zoom in a user-defined area in both live and playback.
- **3.1.3.19.2** The NVR must include a bandwidth control to ensure that images are delivered as quickly as possible within network bandwidth limits.
- **3.1.3.19.3** The NVR must prevent unauthorized program tampering with at a minimum of twenty (20) users and passwords, with settings including:
 - 3.1.3.19.3.1 Local user privileges.
 - **3.1.3.9.3.2.** Remote user privileges.
 - **3.1.3.9.3.3.** Local play privileges.
 - **3.1.3.9.3.4.** Remote play privileges.
 - **3.1.3.9.3.5.** Local view privileges.
 - **3.1.3.9.3.6.** Remote view privileges.
 - **3.1.3.9.3.7.** DCR Local administrator privileges.
 - **3.1.3.9.3.8.** DCR Remote administrator privileges.
- **3.1.3.19.4** The NVR must display video in full screen or multi-screen format, with the camera number, a user-definable camera name, and the camera's recording/alarm status displayed for each camera.
- **3.1.3.19.5** The NVR must support continuous events, and combined continuous event recordings that is user-configurable by channel and must support manual recording overrides of the recording schedule.

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- **3.1.3.19.6** The NVR must include playback controls that allow the user to playback recorded video forward or backwards at multiple speeds.
- **3.1.3.19.7** The NVR must include backup viewer software that allows the user to playback exported video in a windows media player format on a PC.
- **3.1.3.19.8** The NVR must allow the user to perform archived searches of recorded video.
- **3.1.3.19.9** The NVR must support adjustments to the picture resolution, brightness, color, motion, sensitivity, and images per second during recording, and these settings must be user-configurable by channel.
- **3.1.3.19.10** The NVR must display status icons on the connected monitors. Camera status icons must be used for each camera. There must be an icon for:
 - **3.1.3.19.10.1** Alarm detection by the camera channel.
 - **3.1.3.19.10.2** Recording of the camera channel.
 - **3.1.3.9.10.3.** Motion detection by the camera channel.
 - **3.1.3.9.10.4.** Analytic recording of the camera channel.
- **3.1.3.19.11** There will be a message (pop-up, log, email and or text) in case of video loss for each channel.
- **3.1.3.19.12** The NVR must allow the user to select whether the hard drive recording should automatically overwrite data (starting with the oldest data first), or if the recording will stop when the hard drive is filled.
- **3.1.3.19.13** The NVR must have image quality settings that are adjustable on a per camera basis by the end-user for all cameras.
- **3.1.3.19.14** The NVR must support three (3) or five (5) seconds of prealarm recording and must include this buffer at the beginning of all recorded alarms.
- **3.1.3.19.15** The NVR must support from five (5) seconds to ten (10) minutes of post alarm recordings.
- **3.1.3.19.16** The NVR must allow the user to customize the record rates manually or automatically per camera for events and motion detection.
- **3.1.3.19.17** The NVR must allow the installer to set up a mainstream or sub-stream for Video and Audio over Network without affecting the recording rate, quality, and recorded video resolution.

3.1.3.20 Multiscreen:

- **3.1.3.20.1** The NVR must be a pentaplex unit, allowing simultaneous live display, record playback, backup, and remote access at the unit with no need for additional hardware.
- 3.1.3.20.2 The NVR must provide the following displays in live mode: 3.1.3.20.2.1 Full screen, Sequencing, and 1/4/6/8/9/13/16/25/32/36 way.
- 3.1.3.20.3 The NVR must incorporate the following display options:
 3.1.3.10.3.1. Title display enable/disable, per channel.
 3.1.3.10.3.2. Time/date formatting,
 3.1.3.10.3.3. Time/date enable/disable, per channel.
- **3.1.3.20.4** The NVR must provide image update rates for live and record modes of up to 30fps per channel.
- **3.1.3.20.5** The NVR must have three (3) monitor outputs using the NVR (2) HDMI and (1) VGA Independently as follows:
 - 3.1.3.20.5.1 Two (2) digital Multi Screen output using the HDMI connector (1 & 2) and must be able to display all cameras live or in sequence mode.
 - **3.1.3.20.5.2** Must display live, playback, and programming functions on digital and analog.
 - **3.1.3.20.5.3** HDMI connector 2, Must display customizable layout and view for secondary view with sequence mode.
 - **3.1.3.20.5.4** One (1) analog Multi Screen output using the VGA connector.
 - **3.1.3.20.5.5** Must be able to display all cameras live or in sequence mode.

3.1.3.21 Video motion detection:

- **3.1.3.21.1** The NVR must support video motion detection, with onscreen indications when motion is occurring.\
- **3.1.3.21.2** Motion detection, which must be treated as an event and follow the event encoding settings.
- 3.1.3.21.3 The NVR must support an on-screen setup window to determine the optimum sensitivity settings for each camera input and desired motion detection zones.

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- **3.1.3.21.4** The NVR must have zones per camera arranged in a square grid.
- **3.1.3.21.5** The NVR must have eight levels of sensitivity.

3.1.3.22 Intelligent Analytics (Smart Events)

- **3.1.3.22.1** The NVR must support the recording of intelligent analytics provided by cameras and must include the following but not limited to:
 - **3.1.3.22.1.1** Perimeter Protection (Line crossing, region entrance/exiting/intrusion and Human/motor vehicle/non-motor vehicle classification.
 - **3.1.3.22.1.2** Target counting line/area, heat map (Human/motor vehicle/non motor vehicle classification).
 - **3.1.3.22.1.3** Scene change, video blur and abnormal color detection.
 - **3.1.3.22.1.4** Face detection and face capture
 - **3.1.3.22.1.5** Comparison capability of 18 pictures a second,
 - **3.1.3.22.1.6** Face picture database of 32 libraries (10,000 Face Pictures),
 - **3.1.3.22.1.7** Support successful face recognition alarm and stranger match alarm.
 - **3.1.3.22.1.8** Object Detection with intelligent analytics (Abandoned/Missing)
- **3.1.3.22.2** License Plate Recognition, detection, and plate capture,
 - **3.1.3.12.2.1.** Vehicle Plate Database up to 10,000,
 - **3.1.3.12.2.2.** Support successful plate recognition and strange place alarm.

3.1.3.23 Alarms:

- **3.1.3.23.1** The NVR must support up to 32 alarm inputs, programmable as normally open or normally closed from within the menus.
- **3.1.3.23.2** The NVR must support up to 4 alarm outputs.
- 3.1.3.23.3 The NVR must have a fully programmable additional audible device or buzzer to alert the user to alarms, motion detection, and video loss occurrences or operation failure.

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3.1.3.23.4 The NVR must have an automatic full screen associated alarm display that must change as incoming alarms continue to arrive. As additional alarms arrive, the display monitor must sequence between the cameras in the alarm. The NVR must provide status relays that must link to 3.1.3.23.5 alarms, motion detections, and video loss. 3.1.3.23.6 The NVR must have an alarm history display capable of showing the last 30 alarms received by the system. 3.1.3.23.7 The NVR must have an alarm history display capable of retaining logs of up to 5,000 entries. The NVR must be supplied with push-in wire terminal 3.1.3.23.8

3.1.3.24 Ethernet Communications:

signals.

- **3.1.3.24.1** The NVR must support LAN/WAN Ethernet access.
- **3.1.3.24.2** The NVR must support Ethernet bandwidths of 10/100/1000 Mbps.

connections to facilitate easy alarms and other input/output

- **3.1.3.24.3** The NVR must support simultaneous Ethernet access by not less than 128 workstations connected to the LAN/WAN.
- 3.1.3.24.4 The NVR must be provided with GUI software for remote playback and viewing to support Windows 7, 8, 10, and 11 operating systems and full searching capabilities. It must be possible to remotely set up the NVR unit using the remote viewing interface after enabling its P2P feature or establishing remote access to the local network.
- 3.1.3.24.5 The NVR must provide secure remote operation and configuration through remote viewing software, a web client, and mobile device applications (Apple & Android).
- **3.1.3.25** The NVR's remote viewing software must include, at a minimum the following:
 - **3.1.3.25.1** Viewing live video,
 - **3.1.3.25.2** Searching recorded video,
 - **3.1.3.25.3** Exporting still images (in JPEG format) and video clips (in MP4 format).
 - **3.1.3.25.4** Controlling PTZ cameras.
 - **3.1.3.25.5** The NVR must not stop recording during any Ethernet access.

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- **3.1.3.26** The NVR must allow the user full programming of Ethernet parameters, including the following:
 - **3.1.3.26.1** DHCP (enable/disable),
 - 3.1.3.26.2 DDNS,
 - **3.1.3.26.3** IP address static
 - **3.1.3.26.4** Default gateway,
 - **3.1.3.26.5** Subnet mask,
 - **3.1.3.26.6** HTTP port,
 - **3.1.3.26.7** HTTPS port,
 - **3.1.3.26.8** Server port,
 - **3.1.3.26.9** RTSP port,
 - **3.1.3.26.10** FTP Server address, ports, username, and password.

3.1.3.27 Archiving:

- **3.1.3.27.1** The NVR must support the archiving of recorded video and audio to a USB storage device.
- 3.1.3.27.2 The NVR must have an option to select the type of archiving device connected when interfaced with the devices specified or approved equals.
- **3.1.3.27.3** The NVR must support selective archiving.
- **3.1.3.27.4** The NVR must have an on-screen progress indicator when selective archiving or restoration operations are accessing the archive device.
- 3.1.3.27.5 The NVR must have an option to backup/archive data on a schedule and must be able to backup/archive all video-audio footage daily, weekly, monthly on to a backup storage solution and run on an automatic schedule (must have these options available: USB, E-Sata, Network and Cloud). With restore features, daily, weekly, and monthly.

3.1.3.28 Recorder Hard Drives:

- **3.1.3.28.1** The NVR must record video on a hard drive. No video tape or videotape recorders will be permitted as a replacement for the hard drives.
- **3.1.3.28.2** The NVR must support the following hard disk drive sizes:
 - **3.1.3.28.2.1** 1TB
 - **3.1.3.28.2.2** 2TB
 - **3.1.3.28.2.3** 3TB
 - **3.1.3.28.2.4** 4TB
 - **3.1.3.28.2.5** 6TB

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- **3.1.3.28.2.6** 8TB
- **3.1.3.28.2.7** 10TB
- **3.1.3.28.2.8** 12TB
- 3.1.3.28.3 The NVR must offer the following internal hard disk drive (HDD) storage options:
 - **3.1.3.28.3.1** The NVR must support 1 x 8 internal 3.5" HDD bays.
 - **3.1.3.28.3.2** The NVR must support max 12TB per HDD.
- **3.1.3.28.4** Minimum storage retention with 24 hours of nonstop recording.
 - **3.1.3.28.4.1** Minimum 15fps @ 5mp for fixed indoor and outdoor cameras,
 - **3.1.3.28.4.2** Minimum 15fps @ 6mp for fisheyes.
 - **3.1.3.28.4.3** Minimum 15fps @ 12mp for multi-sensor 180 cameras.
 - **3.1.3.28.4.4** Minimum 15fps @ 12mp for multi-sensor 180 camera, minimum 15fps @ 8mp for PTZ cameras.
- **3.1.3.28.5** Minimum Storage:
 - **3.1.3.28.5.1** Minimum Storage for 30 days 3.1.3.28.5.1.1 Configuration 3 x 12TB surveillance grade HDD.
 - 3.1.3.28.5.2 Expandable up to 60 days.
 3.1.3.28.5.2.1 Configuration 6 x 12TB surveillance grade HDD.
 - **3.1.3.28.5.3** The utilized hard drives must support the latest SATA technology, including HDD status.
 - **3.1.3.28.5.4** The utilized hard drives must be specifically developed for the Digital Video Archiving Industry.
- 3.1.3.29 System Hardware:
 - **3.1.3.29.1** The network video recorder must have the following mechanical specifications:
 - **3.1.3.29.1.1** Unit Dimensions (W x D x H): 17.51" x 17.17" x 3.54" (445mm x 436mm x 90mm).
 - 3.1.3.29.1.2 Housing: Steel chassis.
 - **3.1.3.29.1.3** Finish: Black matte finish.
 - **3.1.3.29.2** The digital video recorder must have the following electrical specifications:

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- **3.1.3.29.2.1** Power Supply: ATX 250W.
- **3.1.3.29.2.2** Power Consumption: 30W (without HDD and PoE power supply).
- **3.1.3.29.3** The network video recorder must be designed to meet the following environmental conditions:
 - **3.1.3.29.3.1** Operating Temperature: 14~122°F,(-10° C) to 122° F(50° C).
 - **3.1.3.29.3.2** Relative Humidity: 10% to 90% non-condensing.

3.1.3.30 Vendor Support:

- 3.1.3.30.1 The Vendor must provide customer service, pre-sale application assistance, after-sales technical assistance, access to online technical support, and online training using Web conferencing and downloadable training module in a PDF format.
- 3.1.3.30.2 The Vendor must provide technical assistance and support using a toll-free telephone number at no extra charge Monday through Friday 7:00am to 8:00pm EST (Excluding major holidays).
- **3.1.3.30.3** The Vendor must provide technical assistance/support options for after-hours (after 5pm to 10pm EST, weekends, and holidays).
- **3.1.3.30.4** Must provide administrative training to DCR IT Support, this includes but is not limited to navigation, updating cameras, basic troubleshooting, upgrading and reinstalling software and configuration of external storage.
- **3.1.4** Contract Item 4: Vitek NDAA Compliant Hybrid Digital Video Recorder or DVR\NVR (VT-TR8NHA1620), or Equal.
 - **3.1.4.11** Vendor must provide product or service with the following:
 - **3.1.4.11.1** Product NDAA Compliant 4K H.265, H.264 Hybrid DVR 16 channels of analog and 16 channels of IP video inputs and 8 audio input.
 - **3.1.4.11.2** All equipment and materials used must be standard components, regularly manufactured and utilized in the manufacturer's system.
 - **3.1.4.11.3** All systems and components must have been thoroughly tested and proven in actual use.
 - **3.1.4.11.4** All systems and components must be provided with the availability of a toll-free technical support phone number from

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the Vendor. The phone number must allow for immediate technical assistance for either the dealer/installer or the enduser at no charge.

3.1.4.11.5 All systems and components must be provided with an explicit manufacturer warranty.

3.1.4.12 System Description:

- 3.1.4.12.1 The DVR must collect hybrid video channels, with 16 analog and 16 IP video channels for cameras. Each hybrid channel must be configurable for TVI,CVI,AHD, or CVBS high-definition cameras along with audio. The DVR must digitize all channels of video and audio for the purpose of display, archive, and requested distribution across the Ethernet network.
- **3.1.4.12.2** The DVR must meet the requirements of business, government, and general security surveillance applications.
- **3.1.4.12.3** The DVR must offer secure remote network connectivity to a properly specified PC computer that allows transmission of video and control data over the Ethernet network.
- **3.1.4.12.4** The DVR must offer a GUI incorporating video display areas, toolbars, control palettes, and site/device trees.
- **3.1.4.12.5** The DVR must employ a high-profile H.265 and H.64 compression algorithm in the video digitizing scheme. Network IP cameras must be the primary video input devices.
- **3.1.4.12.6** The DVR must offer simultaneous view live or playback while continuing to record and network transfer. The DVR must provide full digital video and audio surveillance over a standard 100Base-T network.
- 3.1.4.12.7 The DVR must offer multiple continuously recorded digital video and audio channels onto a hard drive medium. Each channel of video data must have the capability of being recorded, displayed, played back, archived, and distributed simultaneously across the network.
- **3.1.4.12.8** The video must also be capable of alarm notification based on motion via a built-in utility to configure motion detection of objects in the individual camera scenes. Each camera can be customized for motion area and sensitivity using grid blocks through the camera's setup tool. The motion events must be transmitted to authorized users via an email notification utility.
- **3.1.4.12.9** The DVR must also have full LAN, WAN and Internet connection capability. The DVR will require a broadband

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internet connection of a minimum 200Mbps using either a static or dynamic type IP address. When using a dynamic IP address, DDNS must be an available feature to track the IP address via a customized URL. The DVR supports TCP/IP and DHCP protocol.

- **3.1.4.12.10** The DVR must record user selectable resolution and frame rate set from within the GUI of the DVR.
- **3.1.4.12.11** The DVR must utilize a Digital Signature video authentication algorithm used to verify data integrity.
- **3.1.4.12.12** The DVR must incorporate a Wizard setup for easy programming.
- **3.1.4.12.13** The DVR must support searching of recorded video by motion events, analytic events, date/time, time slice, bookmarks, snapshots, camera ID and logs.
- **3.1.4.12.14** The DVR must support the following playback functions: play, pause, FF, FR, and digital zoom.
- **3.1.4.12.15** On Event the DVR must trigger recording, control PTZ, Alarm Out, Pop-up alarm preview, send email, FTP, record snapshot, and activate buzzer and screen tips.
- **3.1.4.12.16** The DVR must offer a full multi-user authorization logon function. This function must offer custom levels of authorization based on Main Menu functions. There must be an Administrator and User level offered. Anyone with a correct password must log into the DVR.
- **3.1.4.12.17** The DVR must offer a GUI capable of complete recorder configuration and operation. Sub-features such as defined video display and control, component setup, recording setup, network setup, and the use of dialog messages must be provided in a comprehensive menu structure.
- **3.1.4.12.18** Operation of the system must be facilitated using a monitoring screen whereby a security operator can perform a full scope of surveillance duties using the remote application software, the CMS software or a mouse.
- **3.1.4.12.19** The DVR must use a (1) HDMI and (1) VGA main monitor output for video display sequencing.
- **3.1.4.12.20** The DVR must be configurable for several foreign languages including English.
- **3.1.4.12.21** The DVR must support the use of PTZ type cameras using CoC (Control over Coax), RS-485 bus using built-in protocols from several manufacturers or through the network of the PTZ

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IP camera.

- **3.1.4.12.22** The DVR must support alarm in and relay out functions. The alarm events must be transmitted to users via App and/or built-in email utility.
- **3.1.4.12.23** The DVR must support up to 24TB (2 x 12TB), + E-SATA hard drives.
- **3.1.4.12.24** The front panel must contain lights to indicate status for power, HDD, and network connectivity.
- **3.1.4.12.25** The DVR must contain two (2) x USB ports with one (1) available on the front panel and one (1) at the back of the unit.
- 3.1.4.12.26 The DVR must also be equipped for installation, in a standard 19-inch (48.2cm) rack shelf. The rear panel must contain a WAN network port (RJ45) to connect to the internet, HDMI Main Monitor, VGA Main Monitor Output, Audio In/Out inputs, eSATA Alarm-In and Alarm-out.
- **3.1.4.12.27** The DVR must support exporting of video in AVI format with a stand-alone player.
- **3.1.4.12.28** The DVR must support and include a multi-client application for multi-DVR remote access.
- **3.1.4.12.29** The DVR must support bi-directional audio.
- **3.1.4.2.30.** The DVR must support multi-time zones and DST.
- **3.1.4.2.31.** The DVR must support S.M.A.R.T. technology (Self-Monitoring analysis and Reporting Technology for HDD).
- **3.1.4.2.32.** The DVR must support transcendent free P2P service.
- **3.1.4.2.33.** The DVR must support DDNS capability via free DDNS service.
- **3.1.4.2.34.** The DVR must auto-discover transcendent and other ONVIF Profile S compliant IP cameras on the local network without needing to locate the cameras manually.
- **3.1.4.2.35.** The DVR must incorporate an embedded Linux® operating system using nonproprietary software application for control, management, and display.
- 3.1.4.2.36. The DVR must have the following electrical specifications:
 3.1.4.2.36.1. Power input of 12VDC
 3.1.4.2.36.2. Power Supply of DC12V/4A
 3.1.4.2.36.3. Power Consumption of ≤ 30W (without HDD).
- 3.1.4.2.37. Environmental Specifications:3.1.4.2.37.1. Operating Temperatures 14° F to 122°F (-10°C to 50°C).

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3.1.4.2.37.2. Operating Humidity 10% to 90% noncondensing.

3.1.4.13 System Hardware:

- **3.1.4.13.1** The DVR must have the following mechanical specifications:
 - **3.1.4.13.1.1** Unit Dimensions (W x D x H): 14.96" x 10.55" x 1.77" (380mm x 268mm x 45mm).
 - **3.1.4.13.1.2** Must have mounting rack ears included.

3.1.4.14 Mechanical Specification:

- **3.1.4.4.1.** System
 - **3.1.4.4.1.1.** Operating System: Embedded Linux.
 - **3.1.4.4.1.2.** User Interface: On-screen graphic overlays.
- **3.1.4.4.2.** Video:
 - **3.1.4.4.2.1.** Analog Inputs 16 x BNC
 - **3.1.4.4.2.2.** IP Inputs Via WAN input
 - **3.1.4.4.2.3.** Outputs HDMI: 4Kx2K/1920x1080/1280x1024
 - **3.1.4.4.2.4.** VGA: 1920 x 1080/1280 x 1024/1024 x 768.
 - **3.1.4.4.2.5.** BNC: CVBS (used as spot output).
 - **3.1.4.4.2.6.** Encoding: H.265 and H.264
 - **3.1.4.4.2.7.** Resolutions: 8MP, 5MP, 4MP, 3MP, 1080P, 960P, 720P.
 - **3.1.4.4.2.8.** Frame Rate 4K on all channels @ 8fps, 5MP @ 12fps/15fps, (PAL/NTSC), 1080P/720P/WD1 @ 25fps/30fps (PAL/NTSC).
 - **3.1.4.4.2.9.** Pre-record 5 seconds.
 - **3.1.4.4.2.10.** Post-record 10 minutes.
 - **3.1.4.4.2.11.** Display Modes: 1x1, 2x2, 3x3, 4x4, Custom.
 - **3.1.4.4.2.12.** Outputs: 1 x HDMI (4K), 1 x VGA.
- **3.1.4.4.3.** Audio:
 - **3.1.4.4.3.1.** Inputs 8 x RCA.
 - **3.1.4.4.3.2.** Outputs 1 x RCA.
 - **3.1.4.4.3.3.** Audio Compression Codec G.711 U/A.
- **3.1.4.4.4.** Record:
 - **3.1.4.4.4.1.** Record Stream-Dual Stream Recording.
 - **3.1.4.4.4.2.** Resolution 4K, 5MP, 4MP, 1080p, 720p, WD1.
 - **3.1.4.4.4.3.** Frame Rate: 4K @ 8fps, 5MP @ 12fps, 1080p/720p/WD1 @ 25fps/30fps (PAL/NTSC).

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- **3.1.4.4.4.** Bit Rate 32-64 Mbps.
- **3.1.4.4.4.5.** Manual mode, Schedule, Motion Sensor, Intelligence.
- **3.1.4.4.5.** Playback:
 - **3.1.4.4.5.1.** Simultaneous Playback 16 Channel Max.
- **3.1.4.4.6.** Network:
 - **3.1.4.4.6.1.** Interface one 10/100/1000Mbps (RJ45).
 - **3.1.4.4.6.2.** Protocol TCP/IP, PPP, DHCP, DNS, DDNS, UpnP, NTP, SMTP, HTTP, HTTPs, RTSP, ONVIF Profile S.
 - **3.1.4.4.6.3.** PTZ Remote control/remote client.
- **3.1.4.4.7.** Alarms:
 - **3.1.4.4.7.1.** Inputs 16.
 - **3.1.4.4.7.2.** Outputs 4.
- **3.1.4.4.8.** Auxiliary:
 - **3.1.4.4.8.1.** Two USB 2.0 ports.
- **3.1.4.4.9.** The front panel must include the following items:
 - **3.1.4.4.9.1.** USB port for saving video clips to external storage devices.
 - **3.1.4.4.9.2.** LED status indicators, including indicators for power, network activity, hard drive, and recording.
- **3.1.4.4.10.** Remote Control:
 - **3.1.4.4.10.1.** Remote Surveillance full remote-control operation of PTZ.
 - **3.1.4.4.10.2.** Secure Web Viewer Edge, Chrome, Firefox.
 - **3.1.4.4.10.3.** Control System Transcendent VMS.
 - **3.1.4.4.10.4.** Secure Mobile Devices iOS, Android.
 - **3.1.4.4.10.5.** Internal Storage 2 x SATA (up to 24TB).

3.1.4.15 Vendor Support:

- **3.1.4.15.1** The Vendor must provide customer service pre-sales application assistance, after-sales technical assistance, access to online technical support, online training using Web conferencing and downloadable training material in .PDF format.
- 3.1.4.15.2 The Vendor must provide technical assistance and support using a toll-free telephone number at no extra charge Monday through Friday 7:00am to 8:00pm EST (Excluding major holidays).

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- **3.1.4.15.3** The Vendor must provide technical assistance/support options for after-hours (after 5pm to 10pm EST, weekends, and holidays).
- **3.1.4.15.4** Must provide administrative training to DCR IT Support, this includes but is not limited to navigation, updating camera, basic troubleshooting, upgrading and reinstalling software and configuration of external storage.

3.1.4.16 Warranty Period:

- **3.1.4.16.1** The Vendor must provide a limited four (4) year warrant for the product to be free of material and quality defects. Hard-drive warranty must be three (3) years by the hard-drive manufacturer.
- **3.1.5** Contract Item 5: Vitek NDAA Compliant 4MP Bullet IP Camera (VTC-TNB4RMA4), or Equal.
 - **3.1.5.1** Vendor must provide NDAA Compliant high definition 4MP IP Bullet video camera products or services with the following.
 - **3.1.5.1.1** H.265+, H.265, H.264+, H.264, MJPEG compression.
 - **3.1.5.1.2** capable of single 30fps at resolutions up to 2592 x 1520
 - **3.1.5.1.3** 2.8mm~12mm motorized auto iris lens, with color in darkness technology
 - **3.1.5.1.4** built-in IR illuminator in a compact bullet housing.

3.1.5.2 Reference Standards:

- **3.1.5.2.1** Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section:
 - **3.1.5.2.1.1** Network IEEE 802.3 Ethernet Standards
 - **3.1.5.2.1.2** Video ISO / IEC
 - **3.1.5.2.1.2.1** 14496 MJPEG-4,
 - **3.1.5.2.1.2.2** 1449-10 MJPEG-4 Part 10 (ITU H.265),
 - **3.1.5.2.1.2.3** 10918 JPEG,
 - **3.1.5.2.1.2.4** ONVIF Profile S.
 - **3.1.5.2.1.3** Emissions FCC-47 CFR Part 15 Class B.
 - **3.1.5.2.1.4** Environmental ANSI/IEC60529 Degrees of Protection by Enclosures.
 - **3.1.5.2.1.5** International Electrotechnical Commission (IEC) –

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Ingress Protection Rating IP67.

3.1.5.2.1.6 European standard EN 62262 – Equivalent to International Electrotechnical Commission (IEC) – Impact Protection Rating IK10.

3.1.5.3 System Description:

- 3.1.5.3.1 The high-definition weatherproof Transcendent IP Bullet camera ("IP camera") must provide video performance capable of providing selectable resolutions up to 2592 x 1520 pixels at 30fps, color in darkness technology, advanced video analytics capabilities contained within an IP-67 rated, IK 10 impact-resistance housing.
- **3.1.5.4** The Transcendent IP Bullet camera must possess the following characteristics:
 - **3.1.5.4.1** H.265+, H.265, H.264+, H.264, MJPEG.
 - **3.1.5.4.2** 4MP resolution (2592 x 1520).
 - **3.1.5.4.3** Color in darkness technology (0.005 lux).
 - **3.1.5.4.4** Intelligent Video Analytics.
 - **3.1.5.4.5** Three (3) independent IP video streams (Triple streaming).
 - **3.1.5.4.6** True day/night operation with IR cut filter removal.
 - **3.1.5.4.7** Motorized 2.8mm~12mm auto iris lens.
 - **3.1.5.4.8** Integrated Smart IR Illumination with up to 165 feet.
 - 3.1.5.4.9 Motion Detection.
 - **3.1.5.4.10** True Wide Dynamic Range.
 - **3.1.5.4.11** 3D digital noise reduction.
 - **3.1.5.4.12** PoE capable.
 - **3.1.5.4.13** Multicast or unicast capable.
 - **3.1.5.4.14** Local storage via Mirco SD/SDHC/SDXC Class 10 max 256GB.
 - 3.1.5.4.15 Built-in webserver.
 - 3.1.5.4.16 Dynamic DNS (DDNS) support.
 - **3.1.5.4.17** IP-67 rated.

3.1.5.5 Video Imager:

- **3.1.5.5.1** Sensor: 1/3" 4.0 Megapixel Progressive Scan CMOS.
- **3.1.5.5.2** Minimum illumination.
 - **3.1.5.5.2.1** Color mode: 0.005 lux F1.6.
 - **3.1.5.5.2.2** Black & white mode: 0.005 lux F1.6.
- **3.1.5.5.3** Progressive Scanning

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- **3.1.5.5.4** Image control settings must be available for configurable shutter modes, Manual or Automatic
 - **3.1.5.5.4.1** Shutter mode, one (1) to 1/10000
 - **3.1.5.5.4.2** Digital slow shutter to decrease the shutter speed in low light.
 - **3.1.5.5.4.3** Automatic Gain control (AGC) 0to 100
 - **3.1.5.5.4.4** Backlight compensation (BLC)
 - 3.1.5.5.4.5 Wide Dynamic Range (WDR) level
- **3.1.5.5.5** IR-CUT mode allows configuration for Day (Color), Night (Black & White), Schedule, or Automatic.
- **3.1.5.5.6** Sensitivity: High, Medium, and Low
- 3.1.5.5.7 Infra-red Mode: Auto, On and Off
- 3.1.5.5.8 Smart IR Control: Off, Manual and Auto
- **3.1.5.5.9** IR LED Sensitivity:
 - **3.1.5.5.9.1** Low.
 - 3.1.5.5.9.2 Medium.
 - 3.1.5.5.9.3 High.
- **3.1.5.5.10** Saturation Control: 0 to 100.
- **3.1.5.5.11** Brightness Control: 0 to 100.
- 3.1.5.5.12 Sharpness Control:
 - **3.1.5.5.12.1** Modes: On or off.
 - **3.1.5.5.12.2** Configurable setting for level 0 to 255
- **3.1.5.5.13** Backlight Control Settings
 - **3.1.5.5.13.1** WDR Modes On or Off
 - **3.1.5.5.13.2** High, Medium, Low
 - **3.1.5.5.13.3** HLC Start time and End time.
 - **3.1.5.5.13.4** BLC with selection for Up, Down, Left, Right, or Middle.
 - **3.1.5.5.13.5** Disable:
- **3.1.5.5.14** White Balance settings must be available for Modes.
 - 3.1.5.5.14.1 Auto, Indoor, Outdoor, or Manual.
 - **3.1.5.5.14.2** In manual mode, configurable settings for
 - **3.1.5.5.14.2.1** Red tuning 1 to 100.
 - **3.1.5.5.14.2.2** Blue tuning 1 to 100.
- 3.1.5.5.15 Defog control settings modes,
 - **3.1.5.5.15.1** On or off.
 - **3.1.5.5.15.2** Configurable settings for Level 0 to 255
- **3.1.5.5.16** Corridor Pattern 0 or 90 or 180 or 270.
- 3.1.5.5.17 Image Mirror: Open or Close.
- 3.1.5.5.18 Image Flip: Open or Close.

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- 3.1.5.5.19 3D-DNR modes,
 - **3.1.5.5.19.1** On and Off
 - **3.1.5.5.19.2** Level 0 to 255
- **3.1.5.5.20** Frequency: 60HZ or 50Hz.
- 3.1.5.6 Lens:
 - **3.1.5.6.1** Lens type: 2.8mm~12mm motorized auto iris.
 - **3.1.5.6.2** Field of view (FOV): Horizontal FOV: $100.0^{\circ} \sim 28.9^{\circ}$ Vertical FOV: $54.5^{\circ} \sim 16.7^{\circ}$.
 - **3.1.5.6.3** IR distance: 165-feet range.
- **3.1.5.7** Video Streams:
 - **3.1.5.7.1** The Transcendent IP Bullet camera must support three (3) configurable video streams, Compression selectable from H.265+, H.265, H.264+, H.264, and MJPEG. With the following properties:
 - **3.1.5.7.1.1** Resolution: H.265+, H.265: 2592 x 1520, 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720.
 - **3.1.5.7.1.2** H.264+, H.264: 2592 x 1520, 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720.
 - **3.1.5.7.1.3** MJPEG: 1280 x 720, 704 x 480, 352 x 240.
 - **3.1.5.7.1.4** Frame rate: 0 30fps
 - **3.1.5.7.2** IR Distance: 165 feet
 - **3.1.5.7.3** Motion Detection The Transcendent IP Bullet camera must have the ability to detect motion within user-defined areas of the video image and configuration settings for sensitivity.
 - **3.1.5.7.4** Region of Interest (ROI) The Transcendent IP Bullet camera will have up to 8 areas of ROI within the camera's settings.
- **3.1.5.8** Intelligent Analytics (Smart Events)
 - **3.1.5.8.1** Perimeter Protection (Line crossing, region entrance/exiting/intrusion) and (Human/motor vehicle/nonmotor vehicle classification).
 - **3.1.5.8.2** Target counting line/area, heat map (Human/motor vehicle/non motor vehicle classification).
 - **3.1.5.8.3** Exception detection, scene change, video blur and abnormal color.
 - **3.1.5.8.4** Face Detection and face capture.
 - **3.1.5.8.5** Object Detection Abandoned/Missing.

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3.1.5.8.6 Video Metadata simultaneously captures human body, motor vehicle, and non-motor vehicle. Extracts 13 human features, 5 motor vehicle features, and one (1) non-motor vehicle feature.

3.1.5.9 Storage and Recording:

- **3.1.5.9.1** The Transcendent IP Bullet camera must have onboard SD card storage.
 - **3.1.5.9.1.1** Card Type: Micro SD, SDHC, SDXC Class 10.
- **3.1.5.9.2** Local recording on the SD card, based on a pre-programmed schedule.
- **3.1.5.9.3** The local SD storage must have the ability to be backed up to alternate media without removing the SD card from the camera.
- **3.1.5.9.4** Video streams must be capable of supporting ONVIF protocol profile S.

3.1.5.10 Other:

- **3.1.5.10.1** Single Images The Transcendent IP Bullet camera must support jpg file image screenshot and export.
- **3.1.5.10.2** Discovery The Manufacturer must offer a discovery program to identify the manufactured devices on the network.
- **3.1.5.10.3** Emergency alarm The Transcendent IP Bullet camera must allow the sending of a video clip of configurable duration to a user defined server location.
- **3.1.5.10.4** Access The Transcendent IP Bullet camera must permit multiple users to access the camera simultaneously.

3.1.5.11 Network:

- **3.1.5.11.1** Connectivity: RJ45 10M/100M self-adaptive Ethernet port that supports these protocols.
- **3.1.5.11.2** Transmission Control Protocol (TCP), Internet Protocol (IP) v4 & v6, User Datagram Protocol (UDP).
- **3.1.5.11.3** Configuration: Dynamic Host Configuration Protocol (DHCP).
- **3.1.5.11.4** Web Services: Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
- **3.1.5.11.5** Network Services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP).

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- **3.1.5.11.6** Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP).
- **3.1.5.11.7** Supports HTTP Post and 802.1x.
- **3.1.5.11.8** The Transcendent IP Bullet camera must support DDNS services offered by the Manufacturer and other publicly available service offerings.
- **3.1.5.11.9** The Transcendent IP Bullet camera must support Quality of Service (QoS) and its ability to dependably run high-priority applications and traffic under limited network capacity.
- **3.1.5.11.10** The Transcendent IP Bullet camera must support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings.
- **3.1.5.11.11** The Transcendent IP Bullet camera must provide digest authentication, ID, and password protection with expiration time and level of password strength.

3.1.5.12 Alarm Features:

3.1.5.12.1 Auxiliary Inputs and Outputs.

3.1.5.12.1.1 Input: one (1) Alarm Sensor.

3.1.5.12.1.2 Output: one (1) Relay.

3.1.5.13 Camera Software:

- **3.1.5.13.1** The Transcendent IP Bullet camera must have a built-in webserver that supports browser-based configuration using Edge, Goggle Chrome©, Mozilla Firefox©, Apple Safari©.
- **3.1.5.13.2** The software GUI must allow access to camera information and all primary software functions, including but not limited to:
 - **3.1.5.13.2.1** Camera network address,
 - **3.1.5.13.2.2** Configuration,
 - **3.1.5.13.2.2.1** Video parameters,
 - **3.1.5.13.2.2.2** Events and Notifications,
 - 3.1.5.13.2.2.3 Motion and Analytic related,
 - **3.1.5.13.2.3** Emergency, Camera network parameters,
 - **3.1.5.13.2.4** SD card storage recording management,
 - **3.1.5.13.2.5** Image capture, and export,
 - **3.1.5.13.2.6** Start and Stop recording.
 - **3.1.5.13.2.7** Stream Control

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3.1.5.13.2.8 Screen snapshot, print, and export

- **3.1.5.14** The Vendor must offer a video viewer and configuration to implement the following actions:
 - **3.1.5.14.1** Camera discovery,
 - **3.1.5.14.2** Video configuration parameters,
 - **3.1.5.14.2.1** Events and Notifications,
 - **3.1.5.14.2.2** Motion and Analytic related,
 - **3.1.5.14.2.3** Emergency,
 - **3.1.5.14.2.4** Camera network parameters,
 - 3.1.5.14.2.5 SD card storage recording management,
 - **3.1.5.14.2.6** Image capture, and export.
 - **3.1.5.14.3** Viewer View video streams through the web browser
 - 3.1.5.14.4 Image view and export,
 - 3.1.5.14.5 Instant record and playback,
 - 3.1.5.14.6 Alerts,
 - **3.1.5.14.6.1** Email setup,
 - **3.1.5.14.6.2** Define parameters for notifications.
 - **3.1.5.14.7** System:
 - **3.1.5.14.7.1** Firmware upgrade,
 - **3.1.5.14.7.2** Rest to factory default,
 - **3.1.5.14.7.3** Set date, time, and NTP server synchronization,
 - **3.1.5.14.7.4** User access control,
 - **3.1.5.14.7.5** View and export camera settings,
 - **3.1.5.14.7.6** View systems logs.

3.1.5.15 NDAA Compliance:

3.1.5.15.1 Section 889, The NDAA prohibits the use of federal funds to acquire telecommunications equipment manufactured by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate), or telecommunications of video surveillance services provided by such entities or using such equipment for use in US Government deployments.

3.1.5.16 Electrical:

3.1.5.16.1 Power supply 12 VDC

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- **3.1.5.16.2** PoE (IEEE 802.3af).
- 3.1.5.16.3 Power Consumption–DC12V: Max 9.5W with IR on
- **3.1.5.16.4** PoE: Max 9.5W with IR on.
- **3.1.5.16.5** Ethernet: RJ-45 connector
- **3.1.5.16.6** External power (12VDC): DC Plug Power Adapter.
- **3.1.5.16.7** Mechanical and Environmental:
 - **3.1.5.16.7.1** Housing Material: Diecast Aluminum.
 - **3.1.5.16.7.2** Housing Color: Warm Grey 1C.
 - **3.1.5.16.7.3** Configuration: Bullet.
 - **3.1.5.16.7.4** Environmental Rating: IP-67.
 - **3.1.5.16.7.5** Dimensions (L x D x H): 8.57" x 3.17" x 3.16"; (21.89mm x 80.5mm x 80.3mm).
 - **3.1.5.16.7.6** Weight: 1.45lbs (0.66kg).
 - **3.1.5.16.7.7** Temperature: Storage: -22°F to 149°F (-30°C to 65°C) and in Operation: -22°F to 140°F (-30°C to 60°C).
 - **3.1.5.16.7.8** Humidity: 0 95% non-condensing.
- **3.1.6** Contract Item 6: Vitek NDAA Compliant 5MP Dome IP Camera (VTD-TND5RMEA), or Equal.
 - **3.1.6.1** Vendor must provide NDAA compliant 5MP Dome IP camera products or service with the following:
 - **3.1.6.1.1** High definition 5MP IP Dome video camera.
 - **3.1.6.1.2** H.265+, H.265, H.264+ H.264, MJPEG compression.
 - **3.1.6.1.3** Capable of single 30fps at resolutions up to 2880 x 1620.
 - **3.1.6.1.4** 2.8mm~12mm motorized auto iris lens, with color in darkness technology.
 - **3.1.6.1.5** Built-in IR illuminator in a compact dome housing.
 - 3.1.6.2 References Standards:
 - **3.1.6.2.1** Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section:
 - **3.1.6.2.1.1** Network IEEE 802.3 Ethernet Standards
 - **3.1.6.2.1.2** Video ISO / IEC
 - **3.1.6.2.1.2.1** 14496 MJPEG-4.
 - **3.1.6.2.1.2.2** 1449-10 MJPEG-4 Part 10 (ITU H.264).
 - **3.1.6.2.1.2.3** 10918 JPEG.

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3.1.6.2.1.2.4 ONVIF – Profile	5.
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- **3.1.6.2.1.3** Emissions FCC-47 CFR Part 15 Class B.
- 3.1.6.2.1.4 Environmental ANSI/IEC60529 Degrees of Protection by Enclosures.
- 3.1.6.2.1.5 International Electrotechnical Commission (IEC)– Ingress Protection Rating IP67.
- 3.1.6.2.1.6 European standard EN 62262 Equivalent to
 International Electrotechnical Commission (IEC)
 Impact Protection Rating IK10.

3.1.6.3 System Description:

- 3.1.6.3.1 The high-definition weatherproof Transcendent IP Dome camera ("IP camera") must provide video performance capable of providing selectable resolutions up to 2880 x 1620 pixels at 20fps, color in darkness technology, advanced video analytics capabilities contained within an IP-67 rated, IK 10 impact-resistant housing.
- **3.1.6.3.2** The Transcendent IP Dome camera must possess the following characteristics:
 - **3.1.6.3.2.1** H.265+, H.265, H.264+, H.264, and MJPEG
 - **3.1.6.3.2.2** 5MP resolution (2880 x 1620).
 - **3.1.6.3.2.3** Color in darkness technology (0.007 lux).
 - **3.1.6.3.2.4** Intelligent Video Analytics.
 - **3.1.6.3.2.5** Three (3) independent IP video streams (Triple streaming).
 - **3.1.6.3.2.6** True day/night operation with IR cut filter removal.
 - **3.1.6.3.2.7** Motorized 2.8mm~12mm auto iris lens.
 - **3.1.6.3.2.8** Integrated Smart IR Illumination with up to 165 feet.
 - **3.1.6.3.2.9** Motion Detection.
 - **3.1.6.3.2.10** 120dB True Wide Dynamic Range.
 - **3.1.6.3.2.11** 3D digital noise reduction.
 - **3.1.6.3.2.12** PoE capable.
 - **3.1.6.3.2.13** Multicast or unicast capable.
 - **3.1.6.3.2.14** Local storage via Mirco SD/SDHC/SDXC Class 10 max 256GB.
 - **3.1.6.3.2.15** Built-in webserver.

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3.1.6.3.2.16 Dynamic DNS (DDNS) support.

3.1.6.3.2.17 IP-67 rated.

3.1.6.4 Video Imager:

- **3.1.6.4.1** Sensor: 1/2.7" 5.0 Megapixel Progressive Scan CMOS.
- **3.1.6.4.2** Minimum illumination.
 - **3.1.6.4.2.1** Color mode: 0.007 lux F1.6.
 - **3.1.6.4.2.2** Black & white mode: 0.005 lux F1.6.

3.1.6.5 Scanning – Progressive.

- **3.1.6.5.1** Image control settings must be available for configurable shutter modes: automatic or manual.
 - **3.1.6.5.1.1** Shutter mode: automatic or manual 1 to 1/10,000.
 - **3.1.6.5.1.2** Digital slow shutter to decrease the shutter speed in low light.
 - **3.1.6.5.1.3** Automatic Gain Control (AGC): 0 to 100.
 - **3.1.6.5.1.4** Backlight Compensation (BLC).
 - **3.1.6.5.1.5** Wide Dynamic Range (WDR) level.
- **3.1.6.5.2** IR-CUT mode allows configuration for Day (Color), Night (Black & White), Schedule, or Automatic.
- **3.1.6.5.3** Sensitivity; High, Mid, Low
- 3.1.6.5.4 Infra-red Mode: Auto, On, Off
- 3.1.6.5.5 Smart IR Control: Off, Manual, Auto
- **3.1.6.5.6** IR LED Sensitivity:
 - **3.1.6.5.6.1** Low
 - **3.1.6.5.6.2** Medium
 - **3.1.6.5.6.3** High
- **3.1.6.5.7** Saturation Control: 0 to 100.
- **3.1.6.5.8** Brightness Control: 0 to 100.
- **3.1.6.5.9** Sharpness Control:
 - **3.1.6.5.9.1** Modes: On or off.
 - **3.1.6.5.9.2** Configurable setting level: 0 to 100

3.1.6.6 Backlight Control Settings.

- **3.1.6.6.1** WDR
 - **3.1.6.6.1.1** Modes: On or Off.
 - **3.1.6.6.1.2** High, Medium, Low.
- **3.1.6.6.2** HLC-Start time and End time.
- **3.1.6.6.3** BLC-selection Up, Down, Left, Right or Mid.

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3.1.6.6.4 Disable

3.1.6.7 White Balance settings must be available for:

3.1.6.7.1 Modes: Auto, Indoor, Outdoor, or Manual.

3.1.6.7.2 In manual mode, configurable settings for:

3.1.6.7.2.1 Red tuning 1 to 100.

3.1.6.7.2.2 Blue tuning 1 to 100

3.1.6.8 Defog control settings.

3.1.6.8.1 Modes: On or off.

3.1.6.8.2 Configurable settings Level 0 to 255

3.1.6.9 Corridor Pattern 0 or 90 or 180 or 270.

3.1.6.10 Image Mirror: Open or Close.

3.1.6.11 Image Flip: Open or Close.

3.1.6.12 3D-DNR:

3.1.6.12.1 Modes On or Off.

3.1.6.12.2 0 to 255.

3.1.6.13 Frequency: 60HZ or 50Hz.

3.1.6.14 Lens:

3.1.6.14.1 Lens type: 2.8mm~12mm motorized auto iris.

3.1.6.14.2 Field of view (FOV): Horizontal FOV: 100.0°~36.5° Vertical FOV: 52°~20.5°.

3.1.6.14.3 IR distance: 165-feet range.

3.1.6.15 Video Streams:

3.1.6.15.1 The Transcendent IP Dome camera must support three (3) configurable video streams, Compression selectable from H.265+, H.265, H.264+, H.264, and MJPEG.

3.1.6.15.2 With the following properties:

3.1.6.15.2.1 Resolution: H.265+, H.265: 2880 x 1620, 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720.

3.1.6.15.2.2 H.264+, H.264: 2880 x 1620, 2560 x 1440, 2304 x 1296, 1920 x 1080, 1280 x 720.

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- **3.1.6.15.2.3** MJPEG: 1280 x 720, 704 x 480, 352 x 240.
- **3.1.6.15.2.4** Frame rate: 0 20 fps @ 5mp, 30 fps @ 4mp and below.
- 3.1.6.15.3 IR Distance: 165 feet
- **3.1.6.15.4** Motion Detection The Transcendent IP Dome camera must have the ability to detect motion within user-defined areas of the video image.
- **3.1.6.15.5** Configuration settings must be available for sensitivity.
- **3.1.6.15.6** Region of Interest (ROI) The Transcendent IP Dome camera will have up to 8 areas of ROI within the camera's settings.
- **3.1.6.15.7** Intelligent Analytics (Smart Events)
 - **3.1.6.15.7.1** Perimeter Protection: Line crossing, region entrance/exiting/intrusion.
 - **3.1.6.15.7.2** Exception Detection: Scene change, video blur and abnormal color detection.
 - **3.1.6.15.7.3** Object Detection: Abandoned/Missing.

3.1.6.16 Storage and Recording:

- **3.1.6.16.1** The Transcendent IP Dome camera must have onboard SD card storage.
 - **3.1.6.16.1.1** Card Type: Micro SD, SDHC, SDXC Class 10.
- **3.1.6.16.2** Local recording on the SD card, based on a pre-programmed schedule.
- **3.1.6.16.3** The local SD storage must have the ability to be backed up to alternate media without removing the SD card from the camera.
- **3.1.6.16.4** Video streams must be capable of supporting ONVIF protocol profile S.

3.1.6.17 Other:

- **3.1.6.17.1** Single Images The Transcendent IP Dome camera must support jpg file image screenshot and export.
- **3.1.6.17.2** Discovery The Manufacturer must offer a discovery program to identify the manufactured devices on the network.
- **3.1.6.17.3** Emergency alarm The Transcendent IP Bullet camera must allow the sending of a video clip of configurable duration to a user defined server location.
- **3.1.6.17.4** Access The Transcendent IP Dome camera must permit multiple users to access the camera simultaneously.

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3.1.6.18 Network:

- **3.1.6.18.1** Connectivity: RJ45 10M/100M self-adaptive Ethernet port.
- **3.1.6.18.2** Protocols supported.
- **3.1.6.18.3** Transmission Control Protocol (TCP), Internet Protocol (IP) v4 & v6, User Datagram Protocol (UDP).
- **3.1.6.18.4** Configuration: Dynamic Host Configuration Protocol (DHCP).
- **3.1.6.18.5** Web Services: Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
- 3.1.6.18.6 Network Services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP).
- **3.1.6.18.7** Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP).
- **3.1.6.18.8** Supports HTTP Post and 802.1x.
- **3.1.6.18.9** The Transcendent IP Dome camera must support DDNS services offered by the Manufacturer and other publicly available service offerings.
- **3.1.6.19** The Transcendent IP Dome camera must support QoS and its ability to dependably run high-priority applications and traffic under limited network capacity.

3.1.6.20 Security:

- **3.1.6.20.1** The Transcendent IP Dome camera must support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings.
- **3.1.6.20.2** The Transcendent IP Dome camera must provide digest authentication, ID, and password protection with expiration time and level of password strength.

3.1.6.21 Camera Software:

- **3.1.6.21.1** The Transcendent IP Dome camera must have a built-in webserver that supports browser-based configuration using Edge, Goggle Chrome©, Mozilla Firefox©, Apple Safari©.
- **3.1.6.21.2** The software GUI must allow access to camera information and all primary software functions, including but not limited to:

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3.1.6.21.2.1	Camera network address,		
3.1.6.21.2.2	Configuration,		
3.1.6.21.2.3	Video parameters,		
3.1.6.21.2.4	Events and Notifications,		
3.1.6.21.2.5	Motion and Analytic related,		
3.1.6.21.2.6	Emergency, Camera network parameters,		
	3.1.6.21.2.6.1 SD card storage recording		
	management,		
	3.1.6.21.2.6.2 Image capture, and export,		
3.1.6.21.2.7	Stream control,		
3.1.6.21.2.8	Screen snapshot, print, and export,		
3.1.6.21.2.9	Start and Stop recording.		

3.1.6.22 The Vendor must offer a video viewer and configuration to implement the following actions:

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3.1.6.22.1	Camera discovery,		
3.1.6.22.2	Video Configuration Parameters,		
	3.1.6.22.2.1	Events and Notifications,	
	3.1.6.22.2.2	Motion and Analytic related,	
	3.1.6.22.2.3	Emergency	
	3.1.6.22.2.4	Camera network parameters,	
	3.1.6.22.2.5	SD card storage recording management,	
	3.1.6.22.2.6	Image capture, and export.	

- **3.1.6.23** View video streams through the web browser.
- **3.1.6.24** Image view and export.
- **3.1.6.25** Instant record and playback,
- 3.1.6.26 Alerts,
 - **3.1.6.26.1** Email setup,
 - **3.1.6.26.2** Define parameters for notifications.
- **3.1.6.27** System:
 - **3.1.6.27.1** Firmware upgrade,
 - 3.1.6.27.2 Reset to factory default,
 - 3.1.6.27.3 Set date, time, and NTP server synchronization,
 - **3.1.6.27.4** User access control,

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- **3.1.6.27.5** View and export camera settings,
- **3.1.6.27.6** View systems logs.

3.1.6.28 NDAA Compliance:

3.1.6.28.1 The NDAA prohibits the use of federal funds to acquire telecommunications equipment manufactured by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate), or telecommunications of video surveillance services provided by such entities or using such equipment for use in US Government deployments.

3.1.6.29 Electrical:

- **3.1.6.29.1** Power 12 VDC
- **3.1.6.29.2** PoE (IEEE 802.3af).
- **3.1.6.29.3** Power Consumption DC12V: Max 8.5W with IR on
- **3.1.6.29.4** PoE: Max 8.5W with IR on.
- **3.1.6.29.5** Ethernet: RJ-45 connector
- **3.1.6.29.6** External power (12VDC): DC Plug Power Adapter.
- **3.1.6.29.7** Mechanical and Environmental:
 - **3.1.6.29.7.1** Housing Material: Diecast Aluminum.
 - **3.1.6.29.7.2** Housing Color: Warm Grey 1C.
 - **3.1.6.29.7.3** Configuration: Dome.
 - **3.1.6.29.7.4** Environmental Rating: IP-67 Ingress + 1K10 Impact.
 - **3.1.6.29.7.5** Dimensions (D x H): 5.55" x 3.95" (141mm x 100mm).
 - **3.1.6.29.7.6** Weight: 2.01lbs (0.91kg).
- **3.1.6.29.8** Temperature: Storage: -22°F to 149°F (-30°C to 65°C). and in Operation: -22°F to 140°F (-30°C to 60°C).
 - **3.1.6.29.8.1** Humidity: 0 95% non-condensing.
- **3.1.7** Contract Item 7: Vitek NDAA Compliant 6MP 360° IP Panoramic Dome Camera (VTD-TND6FPN), or Equal.
 - **3.1.7.1** Vendor must provide NDAA Compliant 6MP IP Panoramic Dome cameras product or service with the following:
 - **3.1.7.1.1** H.265, H.264, and MJPEG compression,
 - **3.1.7.1.2** Capable of single 30fps at resolutions up to 2160 x 2160

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- **3.1.7.1.3** a fixed 1.1mm lens, with color in darkness technology
- **3.1.7.1.4** built-in IR illuminator in a compact panoramic dome housing.
- **3.1.7.2** Reference Standards: Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section:
 - **3.1.7.2.1** Network IEEE 802.3 Ethernet Standards
 - **3.1.7.2.2** Video ISO / IEC
 - **3.1.7.2.2.1** 14496 MJPEG-4,
 - **3.1.7.2.2.2** 1449-10 MJPEG-4 Part 10 (ITU H.264),
 - **3.1.7.2.2.3** 10918 JPEG,
 - **3.1.7.2.2.4** ONVIF Profile S.
 - **3.1.7.2.3** Emissions FCC-47 CFR Part 15 Class B.
 - **3.1.7.2.4** Environmental ANSI/IEC60529 Digress of Protection by Enclosures.
 - **3.1.7.2.5** International Electrotechnical Commission (IEC) Ingress Protection Rating IP67.
 - **3.1.7.2.6** European standard EN 62262 Equivalent to International Electrotechnical Commission (IEC) Impact Protection Rating IK10.

3.1.7.3 System Description:

- 3.1.7.3.1 The high-definition weatherproof Transcendent Panoramic Dome camera ("IP camera") must provide video performance capable of providing selectable resolutions up to 2160 x 2160 pixels at 30fps, color in darkness technology, advanced video analytics capabilities contained within an IP-67 rated, IK 10 impact-resistant housing.
- **3.1.7.3.2** The Panoramic dome Transcendent IP Dome camera must possess the following characteristics:
 - **3.1.7.3.2.1** H.265, H.264 and MJPEG compression.
 - **3.1.7.3.2.2** 6MP resolution (2160 x 2160).
 - **3.1.7.3.2.3** Color in darkness technology (0.068 lux).
 - **3.1.7.3.2.4** Three (3) independent IP video streams (Triple streaming).
 - **3.1.7.3.2.5** True day/night operation with IR cut filter removal.
 - **3.1.7.3.2.6** Fixed 1.1mm lens.
 - **3.1.7.3.2.7** Integrated IR Illumination with up to 65 feet.
 - **3.1.7.3.2.8** Motion Detection.

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- **3.1.7.3.2.9** Digital Wide Dynamic Range.
- **3.1.7.3.2.10** 3D digital noise reduction.
- **3.1.7.3.2.11** PoE capable.
- **3.1.7.3.2.12** Multicast or unicast capable.
- **3.1.7.3.2.13** Local storage via Mirco SD/SDHC/SDXC Class 10 max 256GB.
- **3.1.7.3.2.14** Built-in webserver.
- 3.1.7.3.2.15 Dynamic DNS (DDNS) support.
- **3.1.7.3.2.16** IP-67 rated.
- **3.1.7.3.2.17** 1 CH audio input; 1 CH audio output; 1 CH built-in MIC.

3.1.7.4 Video Imager:

- **3.1.7.4.1** Sensor: 1/2.9" Progressive Scan CMOS.
- **3.1.7.4.2** Minimum illumination.
 - **3.1.7.4.2.1** Color mode: 0.068 lux F2.0.
 - **3.1.7.4.2.2** Black & white mode: 0.008 lux F2.0.
- **3.1.7.4.3** Progressive Scanning.
 - **3.1.7.4.3.1** Image control settings must be available for Shutter modes, Automatic or Manual.
 - **3.1.7.4.3.2** Shutter mode: automatic or manual 1 to 1/10,000.
 - **3.1.7.4.3.3** Digital slow shutter to decrease the shutter speed in low light.
 - **3.1.7.4.3.4** Automatic Gain Control (AGC): 0 to 100.
 - **3.1.7.4.3.5** Backlight Compensation (BLC).
 - **3.1.7.4.3.6** Wide Dynamic Range (DWDR) level.
 - **3.1.7.4.3.7** IR-CUT mode allows configuration for Day (Color), Night (Black & White), Schedule, or Automatic.
 - **3.1.7.4.3.8** Sensitivity in High, Medium, and Low
 - **3.1.7.4.3.9** Infra-red Mode in Auto, On and Off
 - **3.1.7.4.3.10** Saturation Control: 0 to 100.
 - **3.1.7.4.3.11** Brightness Control: 0 to 100.
 - **3.1.7.4.3.12** Sharpness Control:
 - **3.1.7.4.3.12.1** Modes: On or Off
 - **3.1.7.4.3.12.2** Configurable settings for level 0 to
 - 3.1.7.4.3.13 Backlight Control Settings.
 - **3.1.7.4.3.13.1** WDR modes On and Off

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3.1.7.4.3.13.2 DWDR configurable settings for level control 0 to 255

3.1.7.4.3.13.3 HLC Start time and End time.

3.1.7.4.3.13.4 BLC area with selection for Up, Down, Left, Right, or Middle.

3.1.7.4.3.13.5 Disable

3.1.7.4.3.14 White Balance settings must be available for:

3.1.7.4.3.14.1 Modes: Auto, Indoor, Outdoor, or Manual.

3.1.7.4.3.14.2 In manual mode, configurable settings for:

3.1.7.4.3.14.2.1 red tuning 1 to 100 **3.1.7.4.3.14.2.2** blue tuning 1 to

100.

3.1.7.4.4 Defog control settings modes,

3.1.7.4.4.1 On or Off

3.1.7.4.4.2 Configurable settings for level 0 to 255.

3.1.7.4.5 Image Mirror: Open or Close.

3.1.7.4.6 Image flip: Open and Close

3.1.7.4.7 3D-DNR modes

3.1.7.4.7.1 On or Off

3.1.7.4.7.2 level 0 to 255

3.1.7.4.8 Frequency: 60HZ or 50Hz.

3.1.7.5 Lens:

3.1.7.5.1 Lens type: 1.1mm lens 1/2.9" Progressive Scan CMOS.

3.1.7.5.2 Field of view (FOV): Horizontal FOV: 180°

3.1.7.5.3 IR distance: 65-feet range.

3.1.7.5.4 Shutter speed: $1/1s \sim 1/10,000s$

3.1.7.6 Video Streams:

3.1.7.6.1 The Panoramic Dome IP camera must support three (3) configurable video streams, Compression selectable from H.265, H.264, and MJPEG.With the following properties:

3.1.7.6.1.1 Resolution: H.265: 2160 x 2160, 1920 x 1920, 1440 x 1440.

3.1.7.6.1.2 H.264: 2160 x 2160, 1920 x 1920, 1440 x 1440.

3.1.7.6.1.3 MJPEG: 960 x 960, 480 x 480.

3.1.7.6.1.4 Frame rate: 0 - 30 fps.

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- **3.1.7.6.2** IR Distance: 65 feet
- **3.1.7.6.3** Motion Detection The Panoramic Dome IP camera must have the ability to detect motion within user-defined areas of the video image and configuration settings must be available for sensitivity and dwell time.
- **3.1.7.6.4** Region of Interest (ROI) The Transcendent IP Dome camera will have up to 8 areas of ROI within the camera's settings.
- **3.1.7.6.5** Storage and Recording:
 - **3.1.7.6.6** The Panoramic Dome IP camera must have onboard SD card storage.
 - **3.1.7.6.6.1** Card Type: MicroF SD, SDHC, SDXC Class 10.
- **3.1.7.6.7** Local recording on the SD card must commence upon loss of network connectivity, based on a pre-programmed schedule.
- **3.1.7.6.8** The local SD storage must have the ability to be backed up to alternate media without removing the SD card from the camera.
- **3.1.7.6.9** Video streams must be capable of supporting ONVIF protocol profile S.

3.1.7.7 Network:

- **3.1.7.7.1** Connectivity: RJ45 10M/100M self-adaptive Ethernet port, that supports these protocols.
 - **3.1.7.7.1.1** Transmission Control Protocol (TCP), Internet Protocol (IP) v4 & v6, User Datagram Protocol (UDP).
 - **3.1.7.7.1.2** Configuration: Dynamic Host Configuration Protocol (DHCP).
 - **3.1.7.7.1.3** Web Services: Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
 - 3.1.7.7.1.4 Network Services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP).
 - **3.1.7.7.1.5** Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP).
 - **3.1.7.7.1.6** Supports HTTP Post and 802.1x.

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- 3.1.7.7.1.7 The Panoramic Dome IP camera must support DDNS services offered by the Manufacturer and other publicly available service offerings.
- **3.1.7.7.1.8** The Panoramic Dome IP camera must support QoS and its ability to dependably run high-priority applications and traffic under limited network capacity.
- **3.1.7.7.1.9** The Transcendent IP Dome camera must support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings, securely.
- **3.1.7.7.1.10** The Transcendent IP Dome camera must provide digest authentication, ID, and password protection with expiration time and level of password strength.

3.1.7.8 Alarm Features:

- **3.1.7.8.1** Auxiliary Inputs and Outputs
 - **3.1.7.8.1.1** Input one (1) Alarm Sensor
 - **3.1.7.8.1.2** Outputs one (1) Relay.

3.1.7.9 Camera Software:

- **3.1.7.9.1** The Panoramic Dome IP camera must have a built-in webserver that supports browser-based configuration using Edge in IE mode.
- **3.1.7.9.2** The software GUI must allow access to camera information and all primary software functions, including but not limited to:
 - 3.1.7.9.2.1 Camera network address,
 - **3.1.7.9.2.2** Configuration,
 - **3.1.7.9.2.2.1** Video parameters,
 - 3.1.7.9.2.2.2 Events and Notifications,
 - **3.1.7.9.2.2.3** Motion and Analytic related,
 - 3.1.7.9.2.3 Emergency, Camera network parameters,
 - **3.1.7.9.2.3.1** SD card storage recording management,
 - **3.1.7.9.2.3.2** Image capture, and export,
 - **3.1.7.9.2.3.3** Stream control.
 - **3.1.7.9.2.3.4** Screen snapshot, print, and export,
 - **3.1.7.9.2.3.5** Start and Stop recording.

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- **3.1.7.10** The Manufacturer must offer a video viewer and configuration to implement the following actions:
 - **3.1.7.10.1** Camera discovery,
 - 3.1.7.10.2 Video Configuration,
 - **3.1.7.10.2.1** Video parameters,
 - 3.1.7.10.2.2 Events and Notifications,
 - **3.1.7.10.2.3** Motion and Analytic related,
 - **3.1.7.10.2.4** Emergency,
 - **3.1.7.10.2.5** Camera network parameters,
 - **3.1.7.10.2.6** SD card storage recording management,
 - **3.1.7.10.2.7** Image capture, and export.
 - **3.1.7.10.3** Viewer View video streams through the web browser
 - **3.1.7.10.3.1** Image view and export,
 - 3.1.7.10.3.2 Instant record and playback,
 - **3.1.7.10.4** Alerts,
 - **3.1.7.10.4.1** Email setup
 - **3.1.7.10.4.2** Define parameters for notifications.
 - **3.1.7.10.5** System:
 - **3.1.7.10.5.1** Firmware upgrade,
 - **3.1.7.10.5.2** Reset to factory default,
 - **3.1.7.10.5.3** Set date, time, and NTP server synchronization,
 - **3.1.7.10.5.4** User access control,
 - **3.1.7.10.5.5** View and export camera settings,
 - **3.1.7.10.5.6** View systems logs.
 - **3.1.7.10.6** Other:
 - **3.1.7.10.6.1** Single Images The Panoramic dome IP camera must support the jpg image screenshot and export.
 - **3.1.7.10.6.2** Discovery The Manufacturer must offer a discovery program to identify the manufactured devices on the network.
 - 3.1.7.10.6.3 Emergency Alarm The Panoramic dome IP camera must allow the sending of a video clip of configurable duration to user defined server locations.

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3.1.7.10.6.4 Access – The Panoramic dome IP camera must permit multiple users to access the camera simultaneously.

3.1.7.10.7 Electrical:

- **3.1.7.10.7.1** Power 12 VDC
- **3.1.7.10.7.2** PoE (IEEE 802.3af).
- **3.1.7.10.7.3** Power Consumption DC12V: Max 10.5W with IR on
- **3.1.7.10.7.4** PoE: Max 10.5W with IR on.
- **3.1.7.10.7.5** Ethernet: RJ-45 connector
- **3.1.7.10.7.6** External power (12VDC): DC Plug Power Adapter.

3.1.7.10.8 Mechanical and Environmental:

- **3.1.7.10.8.1** Housing Material: Diecast Aluminum.
- **3.1.7.10.8.2** Housing Color: White.
- **3.1.7.10.8.3** Configuration: Dome.
- **3.1.7.10.8.4** Environmental Rating: IP-67.
- **3.1.7.10.8.5** Dimensions (D x H): 1.62" x 5.11" (41mm x 130mm).
- **3.1.7.10.8.6** Weight: 1lbs (0.45kg).
- **3.1.7.10.8.7** Temperature: Storage: -22°F to 140°F (-30°C to 60°C) and in Operation: -22°F to 122°F (-30°C to 50°C).
- **3.1.7.10.8.8** Humidity: 0 95% non-condensing.
- **3.1.8** Contract Item 8: Vitek NDAA Compliant 8MP 180° IP Panoramic Bullet Camera (VTC-TNB8X4MS), or Equal.
 - **3.1.8.1** Vendor must provide NDAA Compliant 8MP IP Panoramic Bullet camera product or service with the following:
 - **3.1.8.1.1** H.265, /H.264, and MJPEG compression,
 - **3.1.8.1.2** capable of single 30fps at resolutions up to 4096 x 1800
 - **3.1.8.1.3** 4x fixed 3.2mm lens, with color in darkness technology.
 - **3.1.8.1.4** built-in IR illuminator in a compact panoramic bullet housing.

3.1.8.2 References:

3.1.8.2.1 Reference Standards: Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section:

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- **3.1.8.2.1.1** Network IEEE 802.3 Ethernet Standards
 - **3.1.8.1.1.1.** Video ISO / IEC
 - **3.1.8.1.1.1.1.** 14496 MJPEG-4.
 - **3.1.8.1.1.1.2.** 1449-10 MJPEG-4 Part 10 (ITU H.264),
 - **3.1.8.1.1.1.3.** 10918 JPEG,
 - **3.1.8.1.1.1.4.** ONVIF Profile S.
 - **3.1.8.1.1.2.** Emissions FCC-47 CFR Part 15 Class B.
 - **3.1.8.1.1.3.** Environmental ANSI/IEC60529 Digress of Protection by Enclosures.
 - **3.1.8.1.1.4.** International Electrotechnical Commission (IEC) Ingress Protection Rating IP67.
 - 3.1.8.1.1.5. European standard EN 62262 Equivalent to International Electrotechnical Commission (IEC) Impact Protection Rating IK10.

3.1.8.3 System Description:

- 3.1.8.3.1 The high-definition weatherproof Transcendent Panoramic Bullet camera ("IP camera") must provide video performance capable of providing selectable resolutions up to 4096 x 1800 pixels at 30fps, color in darkness technology, advanced video analytics capabilities contained within an IP-67 rated, IK 10 impact-resistant housing.
- **3.1.8.3.2** The Panoramic Bullet Transcendent IP camera must possess the following characteristics:
 - **3.1.8.3.2.1** H.265, H.264, and MJPEG compression.
 - **3.1.8.3.2.2** 8MP resolution (4096 x 1800).
 - **3.1.8.3.2.3** Color in darkness technology (0.008 lux).
 - **3.1.8.3.2.4** Intelligent Video Analytics.
 - **3.1.8.3.2.5** Three (3) independent IP video streams (Triple streaming).
 - **3.1.8.3.2.6** True day/night operation with IR cut filter removal.
 - **3.1.8.3.2.7** Fixed 3.2mm lens x4.
 - **3.1.8.3.2.8** Integrated IR Illumination with up to 65 feet w/180° degree array.

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- **3.1.8.3.2.9** Motion Detection.
- **3.1.8.3.2.10** True Wide Dynamic Range.
- **3.1.8.3.2.11** 3D digital noise reduction.
- **3.1.8.3.2.12** PoE capable.
- **3.1.8.3.2.13** Multicast or unicast capable.
- **3.1.8.3.2.14** Local storage via Mirco SD/SDHC/SDXC Class 10 max 256GB.
- **3.1.8.3.2.15** Built-in webserver.
- 3.1.8.3.2.16 Dynamic DNS (DDNS) support.
- **3.1.8.3.2.17** IP-67 rated.

3.1.8.4 Video Imager:

- **3.1.8.4.1** Sensor: 4 x 1/2.8" Progressive Scan CMOS.
- **3.1.8.4.2** Minimum illumination.
 - **3.1.8.4.2.1** Color mode: 0.008 lux F2.0.
 - **3.1.8.4.2.2** Black & white mode: 0.008 lux F2.0.

3.1.8.5 Scanning – Progressive.

- **3.1.8.5.1** Image control settings must be available for configurable shutter modes, Manual or Automatic:
 - **3.1.8.5.1.1** Shutter mode: automatic or manual 1 to 1/10,000.
 - **3.1.8.5.1.2** Digital slow shutter to decrease the shutter speed in low light.
 - **3.1.8.5.1.3** Automatic Gain Control (AGC): 0 to 100.
 - **3.1.8.5.1.4** Backlight Compensation (BLC).
 - **3.1.8.5.1.5** Wide Dynamic Range (WDR) level.
- **3.1.8.5.2** IR-CUT mode allows configuration for Day (Color), Night (Black & White), Schedule, or Automatic.
- **3.1.8.5.3** Sensitivity setting: High, Medium, Low.
- **3.1.8.5.4** Infra-red Mode: Auto, On and Off
- 3.1.8.5.5 Smart IR Control: Off, Manual and Auto
- **3.1.8.5.6** IR LED Sensitivity:
 - **3.1.8.5.6.1** Low,
 - **3.1.8.5.6.2** Medium,
 - **3.1.8.5.6.3** High.
- **3.1.8.5.7** Saturation Control: 0 to 100.
- **3.1.8.5.8** Brightness Control: 0 to 100.
- **3.1.8.5.9** Sharpness Control Mode: On or Off

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3.1.8.5.9.1 Configurable settings for Level 0 to 255.

3.1.8.5.10 Backlight Control Setting.

3.1.8.5.10.1 WDR Modes On or Off and coefficient level control 0 to 255.

3.1.8.5.10.2 HLC start time and end time.

3.1.8.5.10.3 BLC area with selection for Up and Down, Left, Right or Middle.

3.1.8.5.10.4 Disable

3.1.8.5.11 White Balance settings must be available for:

3.1.8.5.11.1 Modes, Auto, Indoor, outdoor, or manual

3.1.8.5.11.2 Configurable setting for

3.1.8.5.11.2.1 red tuning 1 to 100

3.1.8.5.11.2.2 blue tuning 1 to 100.

3.1.8.5.11.3 Defog control settings modes:

3.1.8.5.11.3.1 On and Off

3.1.8.5.11.3.2 Configurable setting for level 0 to 255.

3.1.8.5.12 Corridor Pattern: 0 or 90 or 180 or 270.

3.1.8.5.13 Image Mirror: Open or Close.

3.1.8.5.14 Image Flip: Open or Close.

3.1.8.5.15 3D-DNR modes:

3.1.8.5.15.1 On and Off

3.1.8.5.15.2 Configurable level 0 to 255

3.1.8.5.16 Frequency: 60HZ or 50Hz.

3.1.8.6 Lens:

3.1.8.6.1 Lens type: 4 x 3.2mm lens 1/2.8" Progressive Scan CMOS.

3.1.8.6.2 Field of view (FOV): Horizontal FOV: 180° Vertical FOV: 85°

3.1.8.6.3 IR distance: 165-feet range.

3.1.8.6.4 Shutter speed: $1/1s \sim 1/10,000s$

3.1.8.7 Video Streams:

3.1.8.7.1 The Panoramic Bullet IP camera must support five (5) configurable video streams, Compression selectable from H.265+, H.265, H.264+, H.264, and MJPEG. With the following properties:

3.1.8.7.1.1 Compression & Resolution:

3.1.8.7.1.1.1 H.265: 4096 x 1800, 3840 x 1680, 2880 x 1264, 1920 x 832, 704 x 320.

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- **3.1.8.7.1.1.2** H.264: 4096 x 1800, 3840 x 1680, 2880 x 1264, 1920 x 832, 704 x 320.
- **3.1.8.7.1.1.3** MJPEG: 1920 x 832, 1280 x 560, 704 x 320.
- **3.1.8.7.1.1.4** Frame rate: 0 30fps.
- **3.1.8.7.2** IR Distance: 65 feet
- **3.1.8.7.3** Motion Detection The Panoramic Bullet IP camera must have the ability to detect motion within user-defined areas of the video image and configuration settings for sensitivity.
- **3.1.8.7.4** Region of Interest (ROI) The Transcendent IP Dome camera will have up to 8 areas of ROI within the camera's settings.

3.1.8.8 Intelligent Analytics (Smart Events):

- **3.1.8.8.1** Perimeter Protection
 - **3.1.8.8.1.1** Line crossing, region entrance, exiting, intrusion (Human/motor vehicle/non-motor vehicle classification)
 - **3.1.8.8.1.2** Target counting by line/area.
 - **3.1.8.8.1.3** Exception Detection, scene change, video blur and abnormal color detection.
 - **3.1.8.8.1.4** Face detection and face capture.
 - **3.1.8.8.1.5** Object detection; Abandoned/missing.

3.1.8.9 Storage and Recording:

- **3.1.8.9.1** The Panoramic Bullet IP camera must have onboard SD card storage.
 - **3.1.8.9.1.1** Card Type: Micro SD, SDHC, SDXC Class 10.
- **3.1.8.9.2** Local recording on the SD card, based on a pre-programmed schedule.
- **3.1.8.9.3** The local SD storage must have the ability to be backed up to alternate media without removing the SD card from the camera.

3.1.8.10 Network:

- **3.1.8.10.1** Connectivity: RJ45 10M/100M self-adaptive Ethernet port that supports these protocols.
 - 3.1.8.10.1.1 Transmission Control Protocol (TCP), Internet Protocol (IP) v4 & v6, User Datagram Protocol (UDP).

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- **3.1.8.10.1.2** Dynamic Host Configuration Protocol (DHCP).
- **3.1.8.10.1.3** Web Services: Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
- 3.1.8.10.1.4 Network Services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP).
- **3.1.8.10.1.5** Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP).
- **3.1.8.10.1.6** Supports HTTP Post and 802.1x.
- **3.1.8.10.1.7** The Panoramic Bullet IP camera must support DDNS services offered by the Manufacturer and other publicly available service offerings.
- **3.1.8.10.1.8** The Panoramic Bullet IP camera must support Quality of Service (QoS) and its ability to dependably run high-priority applications and traffic under limited network capacity.
- **3.1.8.10.1.9** The Panoramic Bullet IP camera must support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings.
- **3.1.8.10.1.10** The Transcendent IP Bullet camera must provide digest authentication, ID, and password protection with expiration time and level of password strength.

3.1.8.11 Alarm Features:

3.1.8.11.1 Auxiliary Inputs and Outputs

3.1.8.11.1.1 Input: one (1) alarm sensor

3.1.8.11.1.2 Output: one (1) relay.

3.1.8.12 Camera Software:

- **3.1.8.12.1** The Panoramic Dome IP camera must have a built-in webserver that supports browser-based configuration using Edge, Google Chrome©, Mozilla Firefox©, Apple Safari©.
- **3.1.8.12.2** The software GUI must allow access to camera information and all primary software functions, including but not limited to:

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3.1.8.12.2.2 Configuration,

3.1.8.12.2.2.1 Video parameters,

3.1.8.12.2.2.2 Events and Notifications,

3.1.8.12.2.2.3 Motion and Analytic related,

3.1.8.12.2.3 Emergency, Camera network parameters,

3.1.8.12.2.3.1 SD card storage recording management,

3.1.8.12.2.3.2 Image capture, and export,

3.1.8.12.2.3.3 Stream control,

3.1.8.12.2.3.4 Screen snapshot, print, and export,

3.1.8.12.2.3.5 Start and Stop recording.

3.1.8.13 The Manufacturer must offer a video viewer and configuration to implement the following actions:

3.1.8.13.1 Camera discovery,

3.1.8.13.2 Video configuration parameters,

3.1.8.13.2.1 Events and Notifications,

3.1.8.13.2.2 Motion and Analytic related,

3.1.8.13.2.3 Emergency,

3.1.8.13.2.4 Camera network parameters,

3.1.8.13.2.5 SD card storage recording management,

3.1.8.13.2.6 Image capture, and export.

3.1.8.14 Viewer –

3.1.8.14.1 View video streams through the web browser

3.1.8.14.1.1 Image view and export,

3.1.8.14.2 Instant record and playback,

3.1.8.14.3 Alerts

3.1.8.14.3.1 Email set up.

3.1.8.14.3.2 Define the parameters for notifications.

3.1.8.15 System:

3.1.8.15.1 Firmware upgrade,

3.1.8.15.2 Reset to factory default,

3.1.8.15.3 Set date, time, and NTP server synchronization,

3.1.8.15.4 User access control,

3.1.8.15.5 View and export camera settings,

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3.1.8.15.6 View systems logs.

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- **3.1.8.16.1** Single Images The Panoramic bullet IP camera must support the jpg image screenshot and export.
- **3.1.8.16.2** Discovery The Manufacturer must offer a discovery program to identify the manufactured devices on the network.
- 3.1.8.16.3 Emergency Alarm The Panoramic bullet IP camera must allow the sending of a video clip of configurable duration to user defined server locations.
- **3.1.8.16.4** Access The Panoramic bullet IP camera must permit multiple users to access the camera simultaneously.

3.1.8.17 Electrical:

- **3.1.8.17.1** Power 12 VDC
- **3.1.8.17.2** PoE (IEEE 802.3af).
- **3.1.8.17.3** Power Consumption DC12V: Max 12.5W with IR on
- **3.1.8.17.4** PoE: Max 12.5W with IR on.
- **3.1.8.17.5** Ethernet: RJ-45 connector
- **3.1.8.17.6** External power (12VDC): DC Plug Power Adapter.

3.1.8.18 Mechanical and Environmental:

- **3.1.8.18.1.1** Housing Material: Diecast Aluminum.
- **3.1.8.18.1.2** Housing Color: White.
- **3.1.8.18.1.3** Configuration: Dome.
- **3.1.8.18.1.4** Environmental Rating: IP-67.
- **3.1.8.18.1.5** Dimensions: 11.35" x 6.29" (288.4mm x 159.7mm).
- **3.1.8.18.1.6** Weight: 4.62lbs (2.1kg).
- **3.1.8.18.1.7** Temperature: Operation at -22°F to 122°F (-30°C to 50°C).
- **3.1.8.18.1.8** Humidity: 0 95% non-condensing.

3.1.9 Contract Item 9: Vitek – NDAA Compliant 4MP PTZ IP Camera (VT-TPTZ4AD-4M), or Equal.

- **3.1.9.1** Vendor must provide NDAA Compliant 4MP PTZ IP Camera product or service with the following:
 - **3.1.9.1.1** A high definition 4MP PTZ IP video camera, based on H.265+, H.265, H.264+, H.264, and MJPEG compression,
 - **3.1.9.1.2** capable of single 30fps at resolutions up to 2560 x 1440

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- **3.1.9.1.3** 2.8mm~12mm motorized auto iris lens, with color in darkness technology
- **3.1.9.1.4** built-in IR illuminator in a compact panoramic dome housing.

3.1.9.2 Reference Standards:

- 3.1.9.2.1 Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section:
 - **3.1.9.2.1.1** Network IEEE 802.3 Ethernet Standards
 - **3.1.9.2.1.2** Video ISO / IEC
 - **3.1.9.2.1.2.1** 14496 MJPEG-4,
 - **3.1.9.2.1.2.2** 1449-10 MJPEG-4 Part 10 (ITU H.264),
 - **3.1.9.2.1.2.3** 10918 JPEG,
 - **3.1.9.2.1.2.4** ONVIF Profile S.
- **3.1.9.2.2** Emissions FCC-47 CFR Part 15 Class B.
- **3.1.9.2.3** Environmental ANSI/IEC60529 Degrees of Protection by Enclosures.
- 3.1.9.2.4 International Electrotechnical Commission (IEC) Ingress Protection Rating IP67.
- 3.1.9.2.5 European standard EN 62262 Equivalent to International Electrotechnical Commission (IEC) Impact Protection Rating IK10.

3.1.9.3 System Description:

- 3.1.9.3.1 The high-definition weatherproof Transcendent IP PTZ camera ("IP camera") must provide video performance capable of providing selectable resolutions up to 2560 x 1440 pixels at 30fps, color in darkness technology, advanced video analytics capabilities contained within an IP-66 rated, IK 10 impact-resistant housing (excluding glass window).
- **3.1.9.3.2** The Transcendent IP PTZ camera must possess the following characteristics:
 - **3.1.9.3.2.1** H.265+, H.265, H.264+, H.264, and MJPEG compression.
 - **3.1.9.3.2.2** MP resolution (2560 x 1440).
 - **3.1.9.3.2.3** Color in darkness technology (0.01 lux).

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- **3.1.9.3.2.4** Intelligent Video Analytics.
- **3.1.9.3.2.5** Three (3) independent IP video streams (Triple streaming).
- **3.1.9.3.2.6** True day/night operation with IR cut filter removal.
- **3.1.9.3.2.7** Motorized 2.8mm~12mm auto iris lens.
- **3.1.9.3.2.8** Integrated IR Illumination with up to 164 feet.
- **3.1.9.3.2.9** White light distance up to 98 feet.
- **3.1.9.3.2.10** Built-in speaker.
- **3.1.9.3.2.11** Built-in MIC.
- **3.1.9.3.2.12** Motion Detection.
- 3.1.9.3.2.13 True Wide Dynamic Range.
- **3.1.9.3.2.14** 3D digital noise reduction.
- **3.1.9.3.2.15** PoE capable.
- **3.1.9.3.2.16** Multicast or unicast capable.
- **3.1.9.3.2.17** Local storage via Mirco SD/SDHC/SDXC Class 10 max 256GB.
- **3.1.9.3.2.18** Built-in webserver.
- **3.1.9.3.2.19** Dynamic DNS (DDNS) support.
- **3.1.9.3.2.20** IP-66 rated.

3.1.9.4 Video Imager:

- **3.1.9.4.1** Sensor: 1/2.7" Progressive Scan CMOS with BSI and NIR+ technology.
- **3.1.9.4.2** Minimum illumination.
 - **3.1.9.4.2.1** Color mode: 0.01 lux F1.2.
 - **3.1.9.4.2.2** Black & white mode: 0.002 lux F1.2.
- **3.1.9.4.3** Progressive scanning.
 - **3.1.9.4.3.1** Image control settings must be available for Shutter modes: automatic or manual with exposure mode, and configurable setting for:
 - **3.1.9.4.3.1.1** Shutter mode: automatic or manual 1 to 1/10,000.
 - **3.1.9.4.3.1.2** Digital slow shutter to decrease the shutter speed in low light.
 - **3.1.9.4.3.1.3** Automatic Gain Control (AGC): 0 to 100.
 - **3.1.9.4.3.1.4** Backlight Compensation (BLC).

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3.1.9.4.3.1.5 Wide Dynamic Range (WDR) level: Low, Medium, High

- **3.1.9.4.4** IR-CUT mode allows configuration for Day (Color), Night (Black & White), Schedule, or Automatic.
- 3.1.9.4.5 Sensitivity to High, Medium, and low
- **3.1.9.4.6** Infra-red Mode to Auto, On and Off
- 3.1.9.4.7 Smart IR Control to Off, Manual and Auto
- **3.1.9.4.8** IR LED Sensitivity
 - **3.1.9.4.8.1** Low,
 - **3.1.9.4.8.2** Medium,
 - 3.1.9.4.8.3 High
- **3.1.9.4.9** Saturation Control: 0 to 100.
- **3.1.9.4.10** Brightness Control: 0 to 100.
- 3.1.9.4.11 Sharpness Control:
 - **3.1.9.4.11.1** On and Off modes
 - **3.1.9.4.11.2** Configurable Level 0 to 255.
- 3.1.9.4.12 Backlight Control Settings
 - **3.1.9.4.12.1** HLC with start time and end time.
 - **3.1.9.4.12.2** BLC area with selection for Up, Down, Left, Right or Middle.
 - **3.1.9.4.12.3** Disable
- 3.1.9.4.13 White Balance settings must be available for
 - **3.1.9.4.13.1** Auto, Indoor, Outdoor or Manual modes,
 - **3.1.9.4.13.2** In manual mode, configurable settings
 - **3.1.9.4.13.2.1.1** Red tuning 1 to 100.
 - **3.1.9.4.13.2.1.2** Blue tuning 1 to 100.
- **3.1.9.4.14** Defog control settings modes:
 - **3.1.9.4.14.1** On or off.
 - **3.1.9.4.14.2** Configurable for level 0 to 255.
- **3.1.9.4.15** D-DNR modes:
 - **3.1.9.4.15.1** On and Off.
 - **3.1.9.4.15.2** configurable for level 0 to 255.
- **3.1.9.4.16** Frequency: 60HZ or 50Hz.
- **3.1.9.5** Lens:
 - **3.1.9.5.1** Lens type: $2.8 \text{mm} \sim 12 \text{mm}$ motorized auto iris.
 - **3.1.9.5.2** Field of view (FOV): Horizontal FOV: 97°~31°, Vertical FOV: 51°~18°.
 - **3.1.9.5.3** IR distance: 164-feet range.

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3.1.9.6 Video Streams:

- **3.1.9.6.1** The Transcendent IP PTZ camera must support three (3) configurable video streams, Compression selectable from H.265+, H.265, H.264+, H.264, and MJPEG. With the following properties:
 - **3.1.9.6.1.1** Resolution: H.265+, H.265: 2560 x 1440, 2048 x 1536, 1920 x 1080, 1280 x 960, 1280 x 720.
 - **3.1.9.6.1.2** H.264+, H.264, 2560 x 1440, 2048 x 1536, 1920 x 1080, 1280 x 960, 1280 x 720.
 - **3.1.9.6.1.3** MJPEG: 1280 x 720, 704 x 480, 480 x 240, 352 x 240.
 - **3.1.9.6.1.4** Frame rate: 0 30 fps.
- **3.1.9.6.2** IR Distance: 164 feet
- **3.1.9.6.3** Motion Detection The Transcendent IP PTZ camera must have the ability to detect motion within user-defined areas of the video image. Configuration settings must be available for sensitivity.

3.1.9.7 Intelligent Analytics (Smart Events):

- **3.1.9.7.1** Perimeter Protection Line crossing, region entrance, exiting, intrusion (Human/motor vehicle/non-motor vehicle classification).
- **3.1.9.7.2** Statistics Target counting by line/area.
- **3.1.9.7.3** Exception Detection Scene change, video blur and abnormal color detection.
- **3.1.9.7.4** Face Detection Face detection and face capture.
- **3.1.9.7.5** Smart Tracking Smart Tracking of humans or vehicles.
- **3.1.9.7.6** Active Deterrence Flashing strong white light and predefined voice upon detection (Human/motor vehicle, non-motor vehicle classification).

3.1.9.8 Storage and Recording:

- **3.1.9.8.1** The Transcendent IP PTZ IP camera must have onboard SD card storage.
 - **3.1.9.8.1.1** Card Type: Micro SD, SDHC, SDXC Class 10.
- **3.1.9.8.2** Local recording on the SD card, based on a pre-programmed schedule.

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- **3.1.9.8.3** The local SD storage must have the ability to be backed up to alternate media without removing the SD card from the camera.
- **3.1.9.9** Video streams must be capable of supporting ONVIF protocol profile S.

3.1.9.10 Other:

- **3.1.9.10.1** Single Images The Transcendent IP PTZ camera must support jpg file image screenshot and export.
- **3.1.9.10.2** Discovery The Manufacturer must offer a discovery program to identify their manufactured devices on the network.
- **3.1.9.10.3** Emergency Alarm The Transcendent IP PTZ camera must allow the sending of a video clip of configurable duration to a user defined server location.
- **3.1.9.10.4** Access The Transcendent IP PTZ camera must permit multiple users to access the camera simultaneously.
- **3.1.9.11** PTZ Functions The network video camera must provide the following characteristics, features, and functions:
 - **3.1.9.11.1** Pan Range,
 - **3.1.9.11.2** Pan Speed $0\sim355^{\circ}$, and configurable from $0.1\sim80^{\circ}/s$, Preset speed: $80^{\circ}/s$,
 - **3.1.9.11.3** Tilt Range -5° to 90°, auto flip,
 - **3.1.9.11.4** Tilt Speed and configurable from $0.1\sim60^{\circ}/s$, Preset speed: $60^{\circ}/s$,
 - **3.1.9.11.5** Proportional zoom yes
 - **3.1.9.11.6** Preset 300.
 - **3.1.9.11.7** Cruise 8 cruises, up to 16 presets for each cruise.
 - **3.1.9.11.8** 4 traces, record time over 3 minutes for each trace.
 - **3.1.9.11.9** Power off memory yes.
 - **3.1.9.11.10** Action mode preset cruise, trace, auto scan, random scan.
 - **3.1.9.11.11** 3D Positioning yes.
 - **3.1.9.11.12** PTZ Position Display yes.
 - **3.1.9.11.13** Schedule Task preset cruise, trace, random scan, boundary scanning, dome reboot.

3.1.9.12 Network:

3.1.9.12.1 Connectivity: RJ45 10M/100M self-adaptive Ethernet port with the following supported protocols.

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- **3.1.9.12.1.1** Transmission Control Protocol (TCP), Internet Protocol (IP) v4 & v6, User Datagram Protocol (UDP).
- **3.1.9.12.1.2** Configuration: Dynamic Host Configuration Protocol (DHCP).
- **3.1.9.12.1.3** Web Services: Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
- 3.1.9.12.1.4 Network Services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP).
- **3.1.9.12.1.5** Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP).
- **3.1.9.12.1.6** Supports HTTP Post and 802.1x.
- **3.1.9.13** The Transcendent IP PTZ camera must support DDNS services offered by the Manufacturer and other publicly available service offerings.
- **3.1.9.14** The Transcendent IP PTZ camera must support QoS and its ability to dependably run high-priority applications and traffic under limited network capacity.

3.1.9.15 Security:

- **3.1.9.15.1** The Transcendent IP PTZ camera must support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings.
- **3.1.9.15.2** The Transcendent IP PTZ camera must provide digest authentication, ID, and password protection with expiration time and level of password strength.

3.1.9.16 Audio Features:

- **3.1.9.16.1** External Audio Interface, Channel audio input (mic in), channel audio output (line out).
- **3.1.9.16.2** Built-in speaker, 4Ω , 2.5W rotation camera lens direction, up to 30m distance audible.
- **3.1.9.16.3** Built-in MIC, 1 Channel rotation with camera lens directions, up to 8m distance voice recordable.

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3.1.9.17 Alarm Auxiliary Inputs and Outputs features.

3.1.9.17.1 Input: 1 Alarm sensor.

3.1.9.17.2 Output: 1 Relay.

3.1.9.18 Camera Software:

- **3.1.9.18.1** The Transcendent IP PTZ camera must have a built-in webserver that supports browser-based configuration using Edge, Google Chrome©, Mozilla Firefox©, Apple Safari©.
- **3.1.9.18.2** The software GUI must allow access to camera information and all primary software functions, including but not limited to:
 - **3.1.9.18.2.1** Camera network address,
 - **3.1.9.18.2.2** Configuration,
 - **3.1.9.18.2.3** Video parameters,
 - **3.1.9.18.2.4** Events and Notifications,
 - 3.1.9.18.2.4.1 Motion and Analytic related,3.1.9.18.2.4.2 Emergency,
 - **3.1.9.18.2.5** Camera network parameters,
 - **3.1.9.18.2.6** SD card storage recording management,
 - **3.1.9.18.2.7** Image capture, and export,
 - **3.1.9.18.2.8** Stream control,
 - **3.1.9.18.2.9** Screen snapshot, print, and export,
 - **3.1.9.18.2.10** Start and Stop recording.
- **3.1.9.19** The Manufacturer must offer a video viewer and configuration to implement the following actions:
 - **3.1.9.19.1** Camera discovery,
 - **3.1.9.19.2** Configuration,
 - **3.1.9.19.2.1** Video parameters,
 - 3.1.9.19.2.2 Events and Notifications,
 - 3.1.9.19.2.2.1 Motion and Analytic related,
 - **3.1.9.19.2.2.2** Emergency,
 - **3.1.9.19.2.3** Camera network parameters,
 - **3.1.9.19.2.4** SD card storage recording management,
 - **3.1.9.19.2.5** Image capture, and export.
- **3.1.9.20** Viewer View video streams through the web browser
 - **3.1.9.20.1** Image view and export,

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- **3.1.9.20.2** Instant record and playback,
- **3.1.9.20.3** Alerts.
 - **3.1.9.20.3.1** Email setup,
 - **3.1.9.20.3.2** Define parameters for notifications.

3.1.9.21 System:

- **3.1.9.21.1** Firmware upgrade,
- 3.1.9.21.2 Rest to factory default,
- **3.1.9.21.3** Set date, time, and NTP server synchronization,
- **3.1.9.21.4** User access control.
- **3.1.9.21.5** View and export camera settings,
- **3.1.9.21.6** View systems logs.

3.1.9.22 NDAA Compliance: Section 889

3.1.9.22.1 The NDAA prohibits the use of federal funds to acquire telecommunications equipment manufactured by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate), or telecommunications of video surveillance services provided by such entities or using such equipment for use in US Government deployments. The IP camera must be fully NDAA-compliant.

3.1.9.23 Electrical:

- **3.1.9.23.1** Power
 - **3.1.9.23.1.1** PoE (IEEE 802.3at).
 - **3.1.9.23.1.2** 12 VDC
 - **3.1.9.23.1.3** Power Consumption DC12V: Max 3.0 Amps with IR on.
 - **3.1.9.23.1.3.1** PoE: Max 20.2WW with IR on.
 - **3.1.9.23.1.4** Ethernet: RJ-45 connector.
 - **3.1.9.23.1.5** External power (VDC): DC Plug Power Adapter.

3.1.9.24 Mechanical and Environmental:

- **3.1.9.24.1** Housing Material: Diecast Aluminum.
- **3.1.9.24.2** Housing Color: White and black.
- **3.1.9.24.3** Configuration: PTZ Dome.

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- **3.1.9.24.4** Environmental Rating: IP-66.
- **3.1.9.24.5** Dimensions (W x H): 5.1" x 6.4" (130mm x 162mm.
- **3.1.9.24.6** Weight: 2.65lbs (1.2kg).
- **3.1.9.24.7** Temperature: Storage: -40°F to 158°F (-40°C to 70°C). and in Operation: -40°F to 149°F (-30°C to 65°C).
- **3.1.9.24.8** Humidity: 0 95% non-condensing.
- **3.1.10** Contract Item 10: Vitek NDAA Compliant 8MP PTZ IP Camera (VT-TPTZ32HRAN-8PNS), or Equal.
 - **3.1.10.1** Vendor must provide product or service with the following:
 - 3.1.10.1.1 Product A high-definition 8MP PTZ IP camera, based on H.265+, H.265, H.264+, H.264, and MJPEG compression, capable of single 30fps at resolutions up to 3840 x 2160 with a 4.8mm~154mm motorized auto iris lens, with color in darkness technology and built-in IR illuminator in a dome housing.
 - **3.1.10.2** Reference Standards: Provide systems that meet or exceed the following publications and organizations requirements as applicable to the work of this section:
 - **3.1.10.2.1** Network IEEE 802.3 Ethernet Standards
 - **3.1.10.2.2** Video ISO / IEC 14496 MJPEG-4, 1449-10 MJPEG-4 Part 10 (ITU H.264), 10918 JPEG, ONVIF Profile S.
 - **3.1.10.2.3** Emissions FCC-47 CFR Part 15 Class B.
 - **3.1.10.2.4** Environmental ANSI/IEC60529 Degrees of Protection by Enclosures.
 - **3.1.10.2.4.1** International Electrotechnical Commission (IEC) Ingress Protection Rating IP67.
 - 3.1.10.2.4.2 European standard EN 62262 Equivalent to International Electrotechnical Commission (IEC) Impact Protection Rating IK10.

3.1.10.3 System Description:

3.1.10.3.1 The high-definition weatherproof Transcendent IP PTZ camera ("IP camera") must provide video performance capable of providing selectable resolutions up to 3840 x 2160 pixels at 30fps, color in darkness technology, advanced video analytics capabilities contained within an IP-66 rated, IK 10 impact-resistant housing (excluding glass window).

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- **3.1.10.4** The Transcendent IP PTZ camera must possess the following characteristics:
 - **3.1.10.4.1** H.265+, H.265, H.264+, H.264, and MJPEG compression.
 - **3.1.10.4.2** 8MP resolution (3840 x 2160).
 - **3.1.10.4.3** Color in darkness technology (0.005 lux).
 - **3.1.10.4.4** Intelligent Video Analytics.
 - **3.1.10.4.5** Three (3) independent IP video streams (Triple streaming).
 - **3.1.10.4.6** True day/night operation with IR cut filter removal.
 - **3.1.10.4.7** Motorized 4.8mm~154mm auto iris lens.
 - **3.1.10.4.8** Integrated Smart IR Illumination with up to 656 feet.
 - **3.1.10.4.9** Motion Detection.
 - **3.1.10.4.10** True Wide Dynamic Range.
 - **3.1.10.4.11** 3D digital noise reduction.
 - **3.1.10.4.12** PoE capable.
 - **3.1.10.4.13** Multicast or unicast capable.
 - **3.1.10.4.14** Local storage via Mirco SD/SDHC/SDXC Class 10 max 256GB.
 - **3.1.10.4.15** Built-in webserver.
 - 3.1.10.4.16 Dynamic DNS (DDNS) support.
 - **3.1.10.4.17** IP-66 rated.

3.1.10.5 Video Imager:

- **3.1.10.5.1** Sensor: 1/2.8" Sony STARVIS® Progressive Scan Starlight CMOS.
- **3.1.10.5.2** Minimum illumination.
 - **3.1.10.5.2.1** Color mode: 0.01 lux F1.2.
 - **3.1.10.5.2.2** Black and white mode: 0.002 lux F1.2.
- **3.1.10.5.3** Scanning Progressive.
- **3.1.10.5.4** Image control settings must be available for shutter modes, automatic or manual.
 - **3.1.10.5.4.1** In manual exposure mode, configurable settings for Shutter mode: automatic or manual 1 to 1/10,000.
 - **3.1.10.5.4.2** Digital slow shutter to decrease the shutter speed in low light.
 - **3.1.10.5.4.3** Automatic Gain Control (AGC): 0 to 100.
 - **3.1.10.5.4.4** Backlight Compensation (BLC).
 - **3.1.10.5.4.5** Wide Dynamic Range (WDR) level 0 to 255.

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- **3.1.10.5.5** IR-CUT mode allows configuration for Day (Color), Night (Black & White), Schedule, or Automatic.
 - **3.1.10.5.5.1** Sensitivity: High, Medium, and Low.
- **3.1.10.5.6** Infra-red Mode: Auto, On and Off.
- **3.1.10.5.7** Smart IR Control: Off, Manual and Auto.
- **3.1.10.5.8** IR LED Sensitivity: Low, Mid., and High.
- **3.1.10.5.9** Saturation Control: 0 to 100.
- **3.1.10.5.10** Brightness Control: 0 to 100.
- **3.1.10.5.11** Sharpness Control Modes: On or Off
- **3.1.10.5.12** Configurable settings for Level: 0 to 255.
- 3.1.10.5.13 Backlight Control Settings.
 - **3.1.10.5.13.1** HLC start time and end time.
 - **3.1.10.5.13.2** BLC area with selection for Up, Down, Left, Right, or Middle.

3.1.10.5.13.3 Disable:

- **3.1.10.5.14** White Balance settings must be available for Modes:
- 3.1.10.5.15 Auto, Indoor, Outdoor, or Manual, and manual.
- **3.1.10.5.16** In Manual mode, configurable settings for red and blue tuning 1 to 100.
- **3.1.10.5.17** Defog control settings modes: On or Off, and configurable setting for Level: 0 to 255
- **3.1.10.5.18** 3D-DNR: Modes On or Off and configurable setting for Level 0 to 255.
- **3.1.10.5.19** Frequency: 60HZ or 50Hz.

3.1.10.6 Lens:

- **3.1.10.6.1.** Lens type: 4.8mm~154mm motorized auto iris.
- **3.1.10.6.2.** Field of view (FOV): Horizontal FOV: 61.3°~2.18°, Vertical FOV: 36.9°~1.22°.
- **3.1.10.6.3.** IR distance: 656-feet range.

3.1.10.7. Video Streams:

- **3.1.10.7.1.** The Transcendent IP PTZ camera must support three (3) configurable video streams, Compression selectable from H.265+, H.265, H.264+, H.264, and MJPEG.
- **3.1.10.7.2.** With the following properties:
 - **3.1.10.7.2.1.** Resolution: H.265+, H.265: 3840 x 2160, 2560 x 1440, 1920 x 1080, 1280 x 960, 1280 x 720.

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- **3.1.10.7.2.2.** H.264+, H.264, 3840 x 2160, 2560 x 1440, 1920 x 1080, 1280 x 960, 1280 x 720.
- **3.1.10.7.2.3.** MJPEG: 1280 x 720, 704 x 480, 352 x 240.
- **3.1.10.7.2.4.** Frame rate: 0 30fps.
- 3.1.10.7.3. IR Distance: 656 feet
- **3.1.10.7.4.** Motion Detection The Transcendent IP PTZ camera must have the ability to detect motion within user-defined areas of the video image.
 - **3.1.10.7.4.1.** Configuration settings must be available for sensitivity.

3.1.10.8. Intelligent Analytics (Smart Events):

- 3.1.10.8.1. Perimeter Protection
 - **3.1.10.8.1.1.** Line crossing, region entrance, exiting, intrusion (Human/motor vehicle/non-motor vehicle classification).
 - **3.1.10.8.1.2.** Statistics:
 - **3.1.10.8.1.3.** Target counting by line/area.
 - **3.1.10.8.1.4.** Exception Detection.
 - **3.1.10.8.1.5.** Scene change, video blur and abnormal color detection.
 - **3.1.10.8.1.6.** Face Detection:
 - **3.1.10.8.1.7.** Face detection and face capture.
 - **3.1.10.8.1.8.** Smart Tracking.
 - **3.1.10.8.1.9.** Smart Tracking of human or vehicle.

3.1.10.9. Storage and Recording:

- **3.1.10.9.1.** The Transendent IP PTZ IP camera must have onboard SD card storage.
- **3.1.10.9.2.** Card Type: Micro SD, SDHC, SDXC Class 10.
- **3.1.10.9.3.** Local recording on the SD card, based on a pre-programmed schedule.
- **3.1.10.9.4.** The local SD storage must have the ability to be backed up to alternate media without removing the SD card from the camera.
- **3.1.10.9.5.** Video streams must be capable of supporting ONVIF protocol profile S.

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3.1.10.10. Other:

- **3.1.10.10.1.** Single Images The Transcendent IP PTZ camera must support jpg file image screenshot and export.
- **3.1.10.10.2.** Discovery The Manufacturer must offer a discovery program to identify their manufactured devices on the network.
- **3.1.10.10.3.** Emergency Alarm The Transcendent IP PTZ camera must allow the sending of a video clip of configurable duration to a user defined server location.
- **3.1.10.10.4.** Access The Transcendent IP PTZ camera must permit multiple users to access the camera simultaneously.
- **3.1.10.11.** Functions The network video camera must provide the following characteristics, features, and functions:
 - **3.1.10.11.1.** Pan Range 360° endless.
 - **3.1.10.11.2.** Pan Speed, Configurable from $0.5\sim120^{\circ}/s$, Preset speed: $150^{\circ}/s$,
 - **3.1.10.11.3.** Tilt Range -5° to 90° , auto flip,
 - **3.1.10.11.4.** Tilt Speed Configurable from $0.5\sim120^{\circ}/s$, Preset speed: $150^{\circ}/s$,
 - **3.1.10.11.5.** Proportional zoom yes, preset 360.
 - **3.1.10.11.6.** 8 Cruises, up to 16 presets for each cruise.
 - **3.1.10.11.7.** 4 Traces, record time over 3 minutes for each trace.
 - **3.1.10.11.8.** Power off memory yes.
 - **3.1.10.11.9.** Action mode preset cruise, trace, auto scan, random scan.
 - **3.1.10.11.10.** 3D Positioning yes.
 - **3.1.10.11.11.** PTZ Position Display yes.
 - **3.1.10.11.12.** Schedule Task preset cruise, trace, random scan, boundary scanning, dome reboot.

3.1.10.12. Network:

- **3.1.10.12.1.** Connectivity: RJ45 10M/100M self-adaptive Ethernet port.
- **3.1.10.12.2.** Protocols supported.
- **3.1.10.12.3.** Transmission Control Protocol (TCP), Internet Protocol (IP) v4 & v6, User Datagram Protocol (UDP).

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- **3.1.10.12.4.** Configuration: Dynamic Host Configuration Protocol (DHCP).
- **3.1.10.12.5.** Web Services: Hypertext Transfer Protocol (HTTP), Hypertext Transfer Protocol Secure (HTTPS).
- **3.1.10.12.6.** Network Services: Domain Name System (DNS), Network Time Protocol (NTP), Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP).
- **3.1.10.12.7.** Media: Real-Time Transport Protocol (RTP), Real-Time Streaming Protocol (RTSP).
- **3.1.10.12.8.** Supports HTTP Post and 802.1x.
- **3.1.10.12.9.** The Transcendent IP PTZ camera must support DDNS services offered by the Manufacturer and other publicly available service offerings.
- **3.1.10.12.10.** The Transcendent IP PTZ camera must support QoS and its ability to dependably run high-priority applications and traffic under limited network capacity.
- **3.1.10.12.11.** The Transcendent IP PTZ camera must support IP address filtering whereby users can enter a list of allowed or blocked IP addresses for viewing video and configuring camera settings.
- **3.1.10.12.12.** The Transcendent IP PTZ camera must provide digest authentication, ID, and password protection with expiration time and level of password strength.

3.1.10.13. Alarm Features:

3.1.10.13.1. Auxiliary Inputs and Outputs.

3.1.10.13.1.1. Input: 1 Alarm sensor.

3.1.10.13.1.2. Output: 1 Relay.

3.1.10.14. Camera Software:

- **3.1.10.14.1.** The Transcendent IP PTZ camera must have a built-in webserver that supports browser-based configuration using Edge, Google Chrome©, Mozilla Firefox©, Apple Safari©.
- **3.1.10.14.2.** The software GUI must allow access to camera information and all primary software functions, including but not limited to:
 - **3.1.10.14.2.1.** Camera network address,

- **3.1.10.14.2.2.** Configuration,
 - **3.1.10.14.2.2.1.** Video parameters,
 - **3.1.10.14.2.2.2.** Events and Notifications,
 - **3.1.10.14.2.2.3.** Motion and Analytic related,
- **3.1.10.14.2.3.** Emergency, Camera network parameters,
 - **3.1.10.14.2.3.1.** SD card storage recording management,
 - **3.1.10.14.2.3.2.** Image capture, and export,
 - 3.1.10.14.2.3.3. Stream control,
 - **3.1.10.14.2.3.4.** Screen snapshot, print, and export,
 - **3.1.10.14.2.3.5.** Start and Stop recording.
- **3.1.10.15.** The Manufacturer must offer a video viewer and configuration to implement the following actions:
 - **3.1.10.15.1.** Camera discovery,
 - **3.1.10.15.2.** Video Configuration parameters,
 - 3.1.10.15.2.1. Events and Notifications,
 - **3.1.10.15.2.2.** Motion and Analytic related,
 - **3.1.10.15.2.3.** Emergency,
 - **3.1.10.15.2.4.** Camera network parameters,
 - **3.1.10.15.2.5.** SD card storage recording management,
 - **3.1.10.15.2.6.** Image capture, and export.
 - **3.1.10.15.3.** Viewer View video streams through the web browser
 - **3.1.10.15.4.** Image view and export,
 - 3.1.10.15.5. Instant record and playback,
 - 3.1.10.15.6. Alerts,
 - **3.1.10.15.6.1.** Email setup,
 - **3.1.10.15.6.2.** Define parameters for notifications.
 - **3.1.10.15.7.** System:
 - **3.1.10.15.7.1.** Firmware upgrade,
 - **3.1.10.15.7.2.** Reset to factory default,
 - **3.1.10.15.7.3.** Set date, time, and NTP server synchronization,
 - **3.1.10.15.7.4.** User access control,
 - **3.1.10.15.7.5.** View and export camera settings,
 - **3.1.10.15.7.6.** View systems logs.

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3.1.10.16. NDAA Compliance:

- 3.1.10.16.1. Section 889, The NDAA prohibits the use of federal funds to acquire telecommunications equipment manufactured by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate), or telecommunications of video surveillance services provided by such entities or using such equipment for use in US Government deployments.
- **3.1.10.16.2.** This IP camera is fully NDAA compliant.

3.1.10.17. Electrical:

- **3.1.10.17.1.** PoE (IEEE 802.3bt).
- **3.1.10.17.2.** 24 VDC/24VAC
- **3.1.10.17.3.** Power Consumption DC24V: Max 2.75 Amps with IR on
- **3.1.10.17.4.** PoE: Max 34W with IR on.
- **3.1.10.17.5.** Ethernet: RJ-45 connector
- **3.1.10.17.6.** External power (24VDC): DC Plug Power Adapter.

3.1.10.18. Mechanical and Environmental:

- **3.1.10.18.1.** Housing Material: Diecast Aluminum.
- **3.1.10.18.2.** Housing Color: White and black.
- **3.1.10.18.3.** Configuration: PTZ Dome.
- **3.1.10.18.4.** Environmental Rating: IP-66.
- **3.1.10.18.5.** Dimensions (D x H): 7.7" x 12.5" (196mm x 307mm.
- **3.1.10.18.6.** Weight: 8.31lbs (3.7kg).
- **3.1.10.18.7.** Temperature: Storage: -40°F to 158°F (-30°C to 70°C) and in Operation: -40°F to 149°F (-30°C to 65°C).
- **3.1.10.18.8.** Humidity: 0 95% non-condensing.

3.1.11. Contract Item 11: Vitek – NDAA Compliant 2MP HD Analog Dome Camera (VTD-THD2RMS), or Equal.

- **3.1.11.6.** Vendor must provide product or service with the following:
 - **3.1.11.6.1.** Performance Requirements:
 - **3.1.11.6.1.1.** Color Camera using a 1/2.8" CMOS sensor.
 - **3.1.11.6.1.2.** HP Analog (TVI) over Coax Technology: AHD, CVI, & VCBS.

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- **3.1.11.6.1.3.** Full HD, 1920 x 1080 resolution.
- **3.1.11.6.1.4.** True Day/Night functionality.
- **3.1.11.6.1.5.** Vandal resistant dome IP67 + IK10.
- **3.1.11.6.1.6.** True Wide Dynamic Range.
- **3.1.11.6.1.7.** OSD Control via Coax cable using UTC.
- **3.1.11.6.1.8.** Long Distance, Real-Time, Transmission of Video over 1600ft on RG6U Coax Cable.
- **3.1.11.6.1.9.** The camera must be of the manufacturer's official product line, designed for commercial/industrial continuous 24/7 use.
- **3.1.11.6.1.10.** The camera must be based upon standard components and proven technology.
- **3.1.11.6.1.11.** Camera Image Sensor: 1/2.8" CMOS.
- **3.1.11.6.1.12.** Lens: 2.8m~12mm motorized.

3.1.11.7. General Requirements:

- **3.1.11.7.1.** Scene Illumination: Color -0.001 lux @ F1.2, AGC ON; B/W -0 lux with IR.
- **3.1.11.7.2.** Resolution: TVI 1920 x 1080 Full HP @ 30fps.
- **3.1.11.7.3.** CVBS: 960nTVL @ 30fps.
- **3.1.11.7.4.** Signal to noise: more than 52db (AGC off).
- 3.1.11.7.5. Scanning System: Progressive.
- **3.1.11.7.6.** True Day/Night with Infrared Cut Filter (ICR) removal function.
- **3.1.11.7.7.** Ture Wide Dynamic Range 120db.
- **3.1.11.7.8.** Camera Control: OSD Menu via UTC Control.
- **3.1.11.7.9.** Transmission Distance: 1650 feet (500m) via RG6U (5C-2V) coaxial cable.

3.1.11.8. Video Requirements & Adjustments (minimum):

- **3.1.11.8.1.** HD Analog over coax technology: TV1, AHD, CVI & CVBS.
- **3.1.11.8.2.** Video Mode: NTSC/PAL.
- **3.1.11.8.3.** Videa Frame Rate: 1920 x 1080 (TV1) or 960hTVL (CVBS) @ 30fps.
- **3.1.11.8.4.** True Day/Night: Auto (ICR).
- **3.1.11.8.5.** Wide Dynamic Range.
- **3.1.11.8.6.** TVI: True-WDR.
- **3.1.11.8.7.** CVBS: ACE (D-WRD/ATR-EX).

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- **3.1.11.8.8.** White Balance.
- **3.1.11.8.9.** Auto Gain Control (AGC).
- **3.1.11.8.10.** Back Light Compensation (BLC).
- **3.1.11.8.11.** Shutter: 1/30~1/300,000 second.
- 3.1.11.8.12. Sens-UP.
- **3.1.11.8.13.** DNR/DNR (Digital Noise Reduction).
- **3.1.11.8.14.** Digital Effects: Freeze, Mirror.
- **3.1.11.8.15.** Motion: Yes.
- **3.1.11.8.16.** Privacy: Yes.
- 3.1.11.8.17. Defect: Auto.
- **3.1.11.8.18.** Sharpness.
- **3.1.11.8.19.** Lens Shading (LSC).

3.1.11.9. Electrical:

- **3.1.11.9.1.** Input Power: 12VDC.
- **3.1.11.9.2.** Power Consumption: 125mA no IR 420mA with IR.

3.1.11.10. Mechanical:

- **3.1.11.10.1.** Pre-packaged dome camera.
- **3.1.11.10.2.** 3D mounting bracket allows adjustment of the Camera's view to fit application.
- **3.1.11.10.3.** Power Input: 2.1mm barrel.
- **3.1.11.10.4.** Video Output: BNC Connector HD-TV1, AHD, CVI or CVBS signal.
- **3.1.11.10.5.** Dimensions: 5.56" x 3.94" (141mm x 100mm).
- **3.1.11.10.6.** Weight: 1.8lbs (820g).
- **3.1.11.10.7.** Operating Temperature: -4°F~122°F (-20°C~+50°C).
- 3.1.11.10.8. Operating Humidity: 0 to 90% RH (non-condensing).

3.1.11.11. Conformity Certifications:

- **3.1.11.11.1.** Federal Communications Commission (FCC).
- **3.1.11.11.2.** European Conformity (CE).
- **3.1.11.12.** Remote Management Software.
 - **3.1.11.12.1.** Supported by Transcendent Remote Management client software for Windows and Mac PC's and Mobile Applications for Apple and Android operating systems.
- **3.1.12.** Contract Item 12: Vitek NDAA Compliant 8MP HD Analog Dome Camera (VTD-THD8RM), or Equal.

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- **3.1.12.1** Vendor must provide product or service with the following:
 - **3.1.12.1.1** Performance Requirements:
 - **3.1.12.1.2** Color Camera using a 1/2.5" CMOS sensor.
 - **3.1.12.1.3** HP Analog (TVI) over Coax Technology: AHD, CVI, & VCBS.
 - **3.1.12.1.4** Full HD, 3840 x 2160 resolution.
 - **3.1.12.1.5** True Day/Night functionality.
 - **3.1.12.1.6** Vandal resistant dome IP67 + IK10.
 - **3.1.12.1.7** True Wide Dynamic Range.
 - **3.1.12.1.8** OSD Control via Coax cable using UTC.
 - **3.1.12.1.9** Long Distance, Real-Time, Transmission of Video over 1600ft on RG6U Coax Cable.
 - **3.1.12.1.10** The camera must be of the manufacturer's official product line, designed for commercial/industrial continuous 24/7 use.
 - **3.1.12.1.11** The camera must be based upon standard components and proven technology.
 - **3.1.12.1.12** Lens: 2.8m~12mm motorized.

3.1.12.2 General Requirements:

- **3.1.12.2.1** Scene Illumination: Color 0.01 lux @ F1.2, AGC ON; B/W 0 lux with IR.
- **3.1.12.2.2** Resolution: 3840 x 2160 Full HP @ 15fps.
- **3.1.12.2.3** CVBS: 960nTVL @ 30fps.
- **3.1.12.2.4** Signal to noise: more than 52db (AGC off).
- **3.1.12.2.5** Scanning System: Progressive.
- **3.1.12.2.6** True Day/Night with Infrared Cut Filter (ICR) removal function.
- **3.1.12.2.7** Ture Wide Dynamic Range 120db.
- 3.1.12.2.8 Camera Control: OSD Menu via UTC Control.
- **3.1.12.2.9** Transmission Distance: 1650 feet (500m) via RG6U (5C-2V) coaxial cable.

3.1.12.3 Video Requirements & Adjustments (minimum):

- **3.1.12.3.1** HD Analog over coax technology: TV1, AHD, CVI & CVBS.
- **3.1.12.3.2** Video Mode: NTSC/PAL.
- **3.1.12.3.3** Videa Frame Rate: 3840 x 2160 (TV1) or 960hTVL (CVBS) @ 30fps.
- **3.1.12.3.4** True Day/Night: Auto (ICR).

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- **3.1.12.3.5** Wide Dynamic Range.
- **3.1.12.3.6** TVI: True-WDR.
- **3.1.12.3.7** CVBS: ACE (D-WRD/ATR-EX).
- **3.1.12.3.8** White Balance.
- 3.1.12.3.9 Auto Gain Control (AGC).
- **3.1.12.3.10** Back Light Compensation (BLC).
- **3.1.12.3.11** Shutter: 1/30~1/300,000 second.
- **3.1.12.3.12** Sens-UP.
- **3.1.12.3.13** DNR/DNR (Digital Noise Reduction).
- **3.1.12.3.14** Digital Effects: Freeze, Mirror.
- **3.1.12.3.15** Motion: Yes.
- **3.1.12.3.16** Privacy: Yes.
- **3.1.12.3.17** Defect: Auto.
- **3.1.12.3.18** Sharpness.
- **3.1.12.3.19** Lens Shading (LSC).

3.1.12.4 Electrical:

- **3.1.12.4.1** Input Power: 12VDC.
 - **3.1.12.4.2** Power Consumption: IR Off:<2W/IR On:

<5.5W

3.1.12.5 Mechanical:

- **3.1.12.5.1** Pre-packaged dome camera.
- **3.1.12.5.2** 3D mounting bracket allows adjustment of the Camera's view to fit application.
- **3.1.12.5.3** Power Input: 2.1mm barrel.
- **3.1.12.5.4** Video Output: BNC Connector HD-TV1, AHD, CVI or CVBS signal.
- **3.1.12.5.5** Dimensions: 5.56" x 3.94" (141mm x 100mm).
- **3.1.12.5.6** Weight: 1.83lbs (830g).
- **3.1.12.5.7** Operating Temperature: -4°F~122°F (-20°C~50°C).
- **3.1.12.5.8** Operating Humidity: 0 to 90% RH (non-condensing).

3.1.12.6 Conformity Certifications:

- **3.1.12.6.1** Federal Communications Commission (FCC).
- **3.1.12.6.2** European Conformity (CE).
- **3.1.12.6.3** Remote Management Software.
- **3.1.12.6.4** Supported by Transcendent Remote Management client software for Windows and Mac PC's and Mobile Applications for Apple and Android operating systems.

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- **3.1.13** Contract Item 13: Vitek NDAA Compliant 2MP HD Analog Bullet Camera (VTC-THB2RMS), or Equal.
 - **3.1.13.1** Vendor must provide product or service with the following:
 - **3.1.13.1.1** Performance Requirements:
 - **3.1.13.1.1.1** Color Camera using a 1/2.8" CMOS sensor.
 - **3.1.13.1.1.2** HP Analog (TVI) over Coax Technology: AHD, CVI, & VCBS.
 - **3.1.13.1.1.3** Full HD, 1920 x 1080 resolution.
 - **3.1.13.1.1.4** True Day/Night functionality.
 - **3.1.13.1.1.5** Motorized Bullet Camera.
 - **3.1.13.1.1.6** True Wide Dynamic Range.
 - **3.1.13.1.1.7** OSD Control via Coax cable using UTC.
 - **3.1.13.1.1.8** Long Distance, Real-Time, Transmission of Video over 1600ft on RG6U Coax Cable.
 - **3.1.13.1.1.9** The camera must be of the manufacturer's official product line, designed for commercial/industrial continuous 24/7 use.
 - **3.1.13.1.1.10** The camera must be based upon standard components and proven technology.
 - **3.1.13.1.1.11** Lens: 2.8m~12mm motorized.
 - **3.1.13.2** General Requirements:
 - **3.1.13.2.1** Scene Illumination: Color -0.001 lux @ F1.2, AGC ON; B/W -0 lux with IR.
 - **3.1.13.2.2** Resolution: TVI 1920 x 1080 Full HP @ 30fps.
 - **3.1.13.2.3** CVBS: 960nTVL @ 30fps.
 - **3.1.13.2.4** Signal to noise: more than 52db (AGC off).
 - **3.1.13.2.5** Scanning System: Progressive.
 - **3.1.13.2.6** True Day/Night with Infrared Cut Filter (ICR) removal function.
 - **3.1.13.2.7** Ture Wide Dynamic Range 120db.
 - **3.1.13.2.8** Camera Control: OSD Menu via UTC Control.
 - **3.1.13.2.9** Transmission Distance: 1650 feet (500m) via RG6U (5C-2V) coaxial cable.
 - **3.1.13.3** Video Requirements & Adjustments (minimum):
 - **3.1.13.3.1** HD Analog over coax technology: TV1, AHD, CVI & CVBS.

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- **3.1.13.3.2** Video Mode: NTSC/PAL.
- **3.1.13.3.3** Videa Frame Rate: 1920 x 1080 (TV1) or 960hTVL (CVBS) @ 30fps.
- **3.1.13.3.4** True Day/Night: Auto (ICR).
- **3.1.13.3.5** Wide Dynamic Range.
- **3.1.13.3.6** TVI: True-WDR.
- **3.1.13.3.7** CVBS: ACE (D-WRD/ATR-EX).
- **3.1.13.3.8** White Balance.
- **3.1.13.3.9** Auto Gain Control (AGC).
- 3.1.13.3.10 Back Light Compensation (BLC).
- **3.1.13.3.11** Shutter: 1/30~1/300,000 second.
- 3.1.13.3.12 Sens-UP.
- **3.1.13.3.13** 2DNR/3DNR (Digital Noise Reduction).
- **3.1.13.3.14** Digital Effects: Freeze, Mirror.
- **3.1.13.3.15** Motion: Yes.
- **3.1.13.3.16** Privacy: Yes.
- **3.1.13.3.17** Defect: Auto.
- **3.1.13.3.18** Sharpness.
- **3.1.13.3.19** Lens Shading (LSC).

3.1.13.4 Electrical:

- **3.1.13.4.1** Input Power: 12VDC.
- **3.1.13.4.2** Power Consumption: IR off <2W/IR on <5.5W.

3.1.13.5 Mechanical:

- **3.1.13.5.1** Pre-packaged bullet camera.
- **3.1.13.5.2** 3D mounting bracket allows adjustment of the Camera's view to fit application.
- **3.1.13.5.3** Power Input: 2.1mm barrel.
- **3.1.13.5.4** Video Output: BNC Connector HD-TVI, AHD, CVI or CVBS signal.
- **3.1.13.5.5** Dimensions: (L x W x H) 8.68" x 3.15" x 2.78" (220.5 x 80.1 x 70.5mm).
- **3.1.13.5.6** Weight: 1.32lbs (600g).
- **3.1.13.5.7** Operating Temperature: -4°F~122°F (-20°C~50°C).
- **3.1.13.5.8** Operating Humidity: 0 to 90% RH (non-condensing).

3.1.13.6 Conformity Certifications:

3.1.13.6.1 Federal Communications Commission (FCC).

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- **3.1.13.6.2** European Conformity (CE).
- **3.1.13.6.3** Remote Management Software.
- **3.1.13.6.4** Supported by Transcendent Remote Management client software for Windows and Mac PC's and Mobile Applications for Apple and Android operating systems.
- **3.1.14** Contract Item 14: Vitek NDAA Compliant 8MP HD Analog Bullet Camera (VTC-THB8RM), or Equal.
 - **3.1.14.1** Vendor must provide product or service with the following:
 - **3.1.14.2** Performance Requirements:
 - **3.1.14.2.1** Color Camera using a 1/2.5" CMOS sensor.
 - **3.1.14.2.2** HP Analog (TVI) over Coax Technology: AHD, CVI, & VCBS.
 - **3.1.14.2.3** Full HD, 3840 x 2160 resolution.
 - **3.1.14.2.4** True Day/Night functionality.
 - **3.1.14.2.5** Motorized Bullet Camera.
 - **3.1.14.2.6** True Wide Dynamic Range.
 - **3.1.14.2.7** OSD Control via Coax cable using UTC.
 - **3.1.14.2.8** Long Distance, Real-Time, Transmission of Video over 1600ft on RG6U Coax Cable.
 - **3.1.14.2.9** The camera must be of the manufacturer's official product line, designed for commercial/industrial continuous 24/7 use.
 - **3.1.14.2.10** The camera must be based upon standard components and proven technology.
 - **3.1.14.2.11** Lens: 2.8m~12mm motorized.

3.1.14.3 General Requirements:

- **3.1.14.3.1** Scene Illumination: Color -0.001 lux @ F1.2, AGC ON; B/W -0 lux with IR.
- **3.1.14.3.2** Resolution: TVI 3840 x 2160 Full HP @ 30fps.
- **3.1.14.3.3** CVBS: 960nTVL @ 30fps.\
- **3.1.14.3.4** Signal to noise: more than 52db (AGC off).
- **3.1.14.3.5** Scanning System: Progressive.
- **3.1.14.3.6** True Day/Night with Infrared Cut Filter (ICR) removal function.
- **3.1.14.3.7** Ture Wide Dynamic Range 120db.
- **3.1.14.3.8** Camera Control: OSD Menu via UTC Control.

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3.1.14.3.9 Transmission Distance: 1650 feet (500m) via RG6U (5C-2V) coaxial cable.

3.1.14.4 Video Requirements & Adjustments (minimum):

- **3.1.14.4.1** HD Analog over coax technology: TV1, AHD, CVI & CVBS.
- **3.1.14.4.2** Video Mode: NTSC/PAL.
- **3.1.14.4.3** Videa Frame Rate: 3840 x 2160 (TV1) @ 15fps or 960hTVL (CVBS) @ 30fps.
- **3.1.14.4.4** True Day/Night: Auto (ICR).
- **3.1.14.4.5** Wide Dynamic Range, TVI: True-WDR.
- **3.1.14.4.6** CVBS: ACE (D-WRD/ATR-EX).
- **3.1.14.4.7** White Balance.
- **3.1.14.4.8** Auto Gain Control (AGC).
- **3.1.14.4.9** Back Light Compensation (BLC).
- **3.1.14.4.10** Shutter: 1/30~1/300,000 second.
- **3.1.14.4.11** Sens-UP.
- **3.1.14.4.12** 2DNR/3DNR (Digital Noise Reduction).
- **3.1.14.4.13** Digital Effects: Freeze, Mirror.
- **3.1.14.4.14** Motion: Yes.
- **3.1.14.4.15** Privacy: Yes.
- **3.1.14.4.16** Defect: Auto.
- **3.1.14.4.17** Sharpness.
- **3.1.14.4.18** Lens Shading (LSC).

3.1.14.5 Electrical:

- **3.1.14.5.1** Input Power: 12VDC.
- **3.1.14.5.2** Power Consumption: IR off <2W/IR, On <5.5W

3.1.14.6 Mechanical:

- **3.1.14.6.1** Pre-packaged bullet camera.
- **3.1.14.6.2** 3D mounting bracket allows adjustment of the Camera's view to fit application.
- **3.1.14.6.3** Power Input: 2.1mm barrel.
- **3.1.14.6.4** Video Output: BNC Connector HD-TV1, AHD, CVI or CVBS signal.
- **3.1.14.6.5** Dimensions: 8.68" x 3.15" x 2.78" (220.5 x 80.1 x 70.5mm).
- **3.1.14.6.6** Weight: 1.5lbs (680g).

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- **3.1.14.6.7** Operating Temperature: -22°F~122°F (-30°C~50°C).
- **3.1.14.6.8** Operating Humidity: 0 to 90% RH (non-condensing).

3.1.14.7 Conformity Certifications:

- **3.1.14.7.1** Federal Communications Commission (FCC).
- **3.1.14.7.2** European Conformity (CE).
- **3.1.14.7.3** Remote Management Software.
- **3.1.14.7.4** Supported by Transcendent Remote Management client software for Windows and Mac PC's and Mobile Applications for Apple and Android operating systems.
- **3.1.15** Contract Item 15: Vitek NDAA Compliant Video Management System (VT-SVRM10-C), or Equal.
 - **3.1.15.1** Vendor must provide product or service with the following:
 - 3.1.15.1.1 The Video Management System (VMS) must control multiple sources of video surveillance subsystems in a facility to collect, manage and present video in a clear and concise manner. VMS must intelligently determine the capabilities of each subsystem across a single or multiple sites, allowing video management of any compatible analog or digital video device through a unified configuration platform and viewer.

3.1.15.2 System Components:

- **3.1.15.2.1** VMS Service controller containing a database off all network-connected cameras, integrated components, and their configurations.
- **3.1.15.2.2** Workstations that render video and act as a main user/machine interface.

3.1.15.3 Operational Requirements:

- **3.1.15.3.1** VMS must provide a single graphical user interface (GUI) to monitor, control, and administer digital video surveillance equipment from multiple systems and platforms.
- **3.1.15.3.2** VMS must include a fully scalable enterprise-class media management system to enable simultaneous live monitoring from multiple stations and be configurable for storage both on and off site.

- **3.1.15.3.3** VMS software must be configured to store and view images captured by one camera or numerous cameras and monitor connections across an unlimited number of servers.
- **3.1.15.3.4** The VMS application must have the following major capabilities:
 - 3.1.15.3.4.1 Capable of managing pentaplex user operations of attached recording devices simultaneously, including live viewing, recording, playback, archiving of video data to an external storage device, and handling the exchange of data between the server and a remote workstation.
 - 3.1.15.3.4.2 Live viewing of up to 100 cameras on a single workstation with up to four (4) monitors set up at CIF resolution. For 1080p and up to 4K resolution, the number of live streams must be benchmarked on the client hardware configuration deployed.
 - **3.1.15.3.4.3** Integration with multiple digital and network video recording devices.
 - **3.1.15.3.4.4** The number of recorders and camera must be scalable within a network to handle up to 2,048 channels.
 - **3.1.15.3.4.5** Capable of managing the integration with multiple digital IP cameras through compatible recording devices.
 - **3.1.15.3.4.6** Integration with video analytics and a data management utility.
 - **3.1.15.3.4.7** Capable of managing the investigation and video archive search tools of the recording devices.
 - **3.1.15.3.4.8** Capable of managing advanced search capabilities of the recording devices.
 - **3.1.15.3.4.9** Capable of managing motion detection-based recording.
 - **3.1.15.3.4.10** Multi-level user access rights for managing viewing rights and access to the recorder functions.

- **3.1.15.3.4.11** Capable of managing continuous, scheduled, manual, event-based, and alarm-based recording features of the recording devices.
- 3.1.15.3.4.12 Simultaneous use of multiple video compression includes H.264, H.265 (including camera dependent smart code support), MJPEG-4, and MJPEG.
- **3.1.15.3.4.13** Utilization of the off-the-shelf computer workstations, servers, networking, and storage equipment.
- **3.1.15.3.4.14** Maximum of up to sixty-four (64) online users.
- **3.1.15.3.4.15** Expandable up to 10,000 channels.
- **3.1.15.4** VMS Workstation must provide the following operator functions:
 - **3.1.15.4.1** Configuration: The operator (with Administrator privileges) must have the option to configure VMS.
 - **3.1.15.4.2** VMS must support live updates of all configurations.
 - **3.1.15.4.3** The following configurations must be possible:
 - **3.1.15.4.4** Recorders Configuration Option to add/edit/delete recorders.
 - **3.1.15.4.5** Camera Configuration Option to add/edit/delete cameras and associate them to a particular recorder and map to a particular site, partition, or event group.
 - **3.1.15.4.6** User Management (Users & Roles): Option to add/edit/delete roles and associate to predefined privileges and then add/edit/delete users and associate users with roles. Option to associate permissions with selection and toolbar buttons.
 - **3.1.15.4.7** Site Configuration: Option to add/edit/delete a site.
 - **3.1.15.4.8** Workstation Configuration: Option to add/edit/delete a workstation.
 - **3.1.15.4.9** Event Group Configuration: Option to add/edit/delete event groups.
 - **3.1.15.4.10** Support of bulk event association to enable/disable and adjust events for recorders.
 - **3.1.15.4.11** Partition Configuration: Option to add/edit/delete partitions.
 - **3.1.15.4.12** Sequence Configuration: Option to add/edit/delete scan sequences.
 - **3.1.15.4.13** Support for both analog and digital PTZs through the GUI.

- **3.1.15.4.14** Innovative "One-Click" or "Mouse-Drag" 3D PTZ control experience that does away with legacy PTZ controls of continuous clicking.
- **3.1.15.4.15** 360° de-warping "spreads" the distorted fisheye image into natural panoramic and/or multiple tile views. Operators can view and focus on zones of interest on live and recorded video.
- **3.1.15.5** System Hardware: VMS Server must have the minimum of the following:
 - **3.1.15.5.1** CPU Intel Core Processor E-2200.
 - **3.1.15.5.2** OS Linux.
 - **3.1.15.5.3** Memory 8GB DDR4 ECC, up to 128GB.
 - **3.1.15.5.4** Network Card Dual gigabit ports I350-T2 + Intel 210-AT dual gigabit Ethernet ports.
 - **3.1.15.5.5** HDD 1 built-in 128G SSD.
 - **3.1.15.5.6** PCI Expansion 1*PCI-E3.0*8; 1*PCI-3.0*8 (X4); 1*PCI-E0*16 (X8).
 - 3.1.15.5.7 Interface VGA x 1, HDMI x 1, USB3.1 x 6, network interface x 4; DP port x 1, audio input x 1, audio output x 1.
 - **3.1.15.5.8** Dimensions (W x D X H) 16.92" x 19.17" x 1.73" (430mm x 487mm x 44mm).
 - **3.1.15.5.9** Gross Weight: 26.45lbs. (12kg).
- **3.1.15.6** Environmental Conditions: VMS must be designed to function in the following environmental conditions.
 - **3.1.15.6.1** Operating Temperature: 50°F 95°F (10°C to 35°C) noncondensing.
 - **3.1.15.6.2** Emissions: CFR 47 Part 15 Subpart B EN55022, EN6100-3-2, EN 61000-3-3, CISPR 22.
 - **3.1.15.6.3** Immunity: EN55024.
 - **3.1.15.6.4** Safety: UL60950, NWGQ (7), IEC60950, IEC 60825-1:2001.
 - **3.1.15.6.5** Power Requirements: Components must have the following electrical specifications:
 - **3.1.15.6.5.1** 100-240V AC (50Hz/60Hz).
- **3.1.15.7** Backup software: The backup software must have the following:
 - **3.1.15.7.1** Must be compatible with the VMS software.
 - **3.1.15.7.2** Must recognize USB, E-Sate, Network and Cloud Storage.
 - **3.1.15.7.3** Must have automatic scheduling options daily, weekly, and

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monthly.

- **3.1.15.7.4** Must have an alarm when storage is reaching eighty (80%) percent storage capacity.
- **3.1.15.7.5** Must have a manual option to backup on demand.
- **3.1.15.7.6** Must have a full backup that includes a full daily of video files.
- 3.1.15.7.7 Must be able to download, upload video and audio footage, for date, hour, and week. Download into format that can be viewed by windows media player and downloadable to external media. Select a download location, browser to a File location (Cloud, DVD or Local Computer).
- **3.1.15.7.8** Must have video and audio backup compression.
- **3.1.16 Contract Item 16:** Extreme Networks Products 16 Port Network Switch (Model 5320-16P-4XE), or Equal.
 - **3.1.16.1** Must have 10 x 10/100/1000Base-T 802.3 at (30W) ports, Full/Half-Duplex (autosensing) MACsec-capable.
 - **3.1.16.2** Must have 4 x 16Gb SFP uplink ports (includes 2 x Stacking ports @ 10Gb), must be upgradable to 10Gb SFP+ via software license.
 - **3.1.16.3** Must have 1 x Serial console port (RJ-45).
 - **3.1.16.4** Must have 1 x USB A ports for management or external USB flash.
 - **3.1.16.5** Must have 1 x USB Micro-B console port.
- **3.1.17 Contract Item 17:** Extreme Networks Products 24 Port Network Switch (Model 5320-24P-8XE), or Equal.
 - **3.1.17.1** Must have 20 x 10/100/1000Base-T 802.3at (30W) ports Full/Half Duplex (autosensing) MACsec-capable.
 - **3.1.17.2** Must have 8 x 1/10Gb SFP uplink ports (includes 2 x Stacking ports @ 10Gb), must be upgradable to 10Gb SFP+ via software license.
 - **3.1.17.3** Must have 1 x Serial console port (RJ-45).
 - **3.1.17.4** Must have 1 x USB A ports for management or external USB flash.
 - **3.1.17.5** Must have 1 x USB Micro-B console port.
- **3.1.18** Contract Item 18: Extreme Networks Products 48 Port Network Switch (Model 5320-48P-8XE), or Equal.
 - **3.1.18.1** Must have 20 x 10/100/1000Base-T 802.3at (30W) ports Full/Half Duplex (autosensing) MACsec-capable.
 - **3.1.18.2** Must have 8 x 1/10Gb SFP uplink ports (includes 2 x Stacking ports @ 10Gb), must be upgradable to 10Gb SFP+ via software license.
 - **3.1.18.3** Must have 1 x Serial consol port (RJ-45).
 - **3.1.18.4** Must have 1 x USB A ports for management or external USB flash.

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- **3.1.18.5** Must have 1 x USB Micro-B console port.
- **3.1.19** Contract Item 19: Extreme Networks Power Cord, 15A, USA, NEMA 5-15, IEC320-C15 (Part # 10099), or Equal.
 - **3.1.19.1** Must be a minimum of fifteen (15') feet but not more than sixteen (16') feet in length, must be black in color.
- **3.1.20** Contract Item 20: APC Back-UPS 850VA, 120V, USB charging ports, NEMA outlets (surge) (BE850G2), or Equal.
 - **3.1.20.1** 4Kw rating of 450W.
 - **3.1.20.2** Output connection type:
 - **3.1.20.2.1** Six (6) NEMA-5-15R (battery backup).
 - **3.1.20.2.2** Three (3) NEMA 5-15R Surge.
- **3.1.21** Contract Item 21: Ditek Uninterruptible Power Supply (UPS) (DTK-UPS1500R+), or Equal.
 - **3.1.21.1** Must have software available for remote monitoring.
 - **3.1.21.1.1** Capacity: 1500VA, 1500W.
 - **3.1.21.1.2** Voltage Output: 100/110/115/120VAC.
 - **3.1.21.1.3** Input power outlet: NEMA 5-15R (15A).
 - **3.1.21.1.4** Frequency range $47 \sim 53$ Hz or $57 \sim 63$ Hz (Synchronized range) / 50Hz ± 0.1 Hz or 60Hz ± 0.1 Hz (Battery mode).
 - **3.1.21.1.5** Output connections: four (4) 15A non-critical load outlets, four (4) 15A mission-critical load outlets.
 - **3.1.21.1.6** Battery type: Quantity 12V/9Ah 3.
 - **3.1.21.2** Must include mounting rails.
- **3.1.22** Contract Item 22: Western Digital Purple Surveillance Hard Drive (WV33PURZ), or Equal.
 - **3.1.22.1** Must be engineered for mainstream surveillance systems.
 - **3.1.22.2** Supports up to 180TB/yr workload and up to sixteen (16) bays.
 - **3.1.22.3** Capacity: 3TB.
 - **3.1.22.4** Form Factor 3.5 inch.
 - **3.1.22.5** Connector: SATA.
 - **3.1.22.6** Compatibility: up to 64 HD Cameras.
 - **3.1.22.7** Drive Bays.
 - **3.1.22.8** All Frame firmware technology.
 - 3.1.22.9 Interface: SATA.
 - **3.1.22.10** Transfer rate up to 145MB/s.
 - **3.1.22.11** Disk Speed (RPM) 5400 RPM.

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- **3.1.22.12** Recording Technology CMR.
- 3.1.22.13 Cache Size: 64MB.
- **3.1.22.14** Disk Size (W x D x H) 4" x 5.59" x 1.03".
- **3.1.23** Contract Item 23: SanDisk 240GB SSD Plus (SDSSDA-240G-G26), or Equal.
 - **3.1.23.1** Capacity: 240GB.
 - **3.1.23.2** Form Factor: 2.5 inch.
 - **3.1.23.3** Sequential Read Performance: 530MB/s.
 - **3.1.23.4** Sequential Write Performance: 440MB/s.
 - **3.1.23.5** Interface: SATA.
 - **3.1.23.6** Must have at a minimum of a three (3) year warranty.
 - **3.1.23.7** Disk Size (W x D x H) 2.75" x 3.96" x .28".
- **3.1.24** Contract Item 24: Seagate Skyhawk 2TB Surveillance Hard Drive (ST2000VX017), or Equal.
 - **3.1.24.1** Must be engineered for mainstream surveillance systems.
 - 3.1.24.2 Must be Image Perfect™ firmware designed to ensure video footage capture in 24x7 surveillance workloads.
 - 3.1.24.3 Must include Skyhawk Health Management actively to help protect surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuildTM, which provides three (3) times faster volume rebuilds over traditional RAID rebuilds.
 - **3.1.24.4** RV sensors built-in allow drives to maintain performance in multi-bay systems.
 - **3.1.24.5** Three (3) year rescue data recovery service plan.
 - **3.1.24.6** ATA streaming support enables recordings from up to sixty-four (64) cameras.
 - 3.1.24.7 Interface: SATA 6Gb/s.
 - **3.1.24.8** CMR recording technology.
 - **3.1.24.9** 5400 RPM
 - **3.1.24.10** Up to 8 drive bays supported.
 - **3.1.24.11** Maximum sustained transfer rate OD 180MB/s.
 - **3.1.24.12** 256MB Cache.
 - **3.1.24.13** 600,000 Load and Unload Cycles.
 - **3.1.24.14** Nonrecoverable Read Errors Rate, Maximum 1 per 10E14.
 - **3.1.24.15** 8,760 power-on hours per year.
 - **3.1.24.16** Mean time between failures (MTBF) hours, 100,000 hours.
 - **3.1.24.17** Air Drive Design

- **3.1.24.18** Hard drive size (H x W x D) 08." x 4" x 5.8"
- **3.1.25** Contract Item 25: Seagate Skyhawk 4TB Surveillance Hard Drive (ST4000VX016), or Equal.
 - **3.1.25.1** Must be engineered for mainstream surveillance systems.
 - 3.1.25.2 Must be Image Perfect™ firmware designed to ensure video footage capture in 24x7 surveillance workloads.
 - 3.1.25.3 Must include Skyhawk Health Management actively to help protect surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuildTM, which provides three (3) times faster volume rebuilds over traditional RAID rebuilds.
 - **3.1.25.4** RV sensors built-in allow drives to maintain performance in multi-bay systems.
 - **3.1.25.5** Three (3) year rescue data recovery service plan.
 - **3.1.25.6** ATA streaming support enables recordings from up to sixty-four (64) cameras.
 - 3.1.25.7 Interface: SATA 6Gb/s.
 - **3.1.25.8** CMR recording technology.
 - **3.1.25.9** 5400 RPM
 - **3.1.25.10** Up to 16 drive bays supported.
 - **3.1.25.11** Maximum sustained transfer rate OD 180MB/s.
 - **3.1.25.12** 256MB Cache.
 - **3.1.25.13** 600,000 Load and Unload Cycles.
 - **3.1.25.14** Nonrecoverable Read Errors Rate, Maximum 1 per 10E14.
 - **3.1.25.15** 8,760 power-on hours per year.
 - **3.1.25.16** Mean time between failures (MTBF) hours, 1,000,000 hours.
 - **3.1.25.17** Air Drive Design.
 - **3.1.25.18** Hard drive size (H x D x W) .8" x 4" x 5.8"
- **3.1.26** Contract Item 26: Seagate Skyhawk 6TB Surveillance Hard Drive (ST6000VX001), or Equal.
 - **3.1.26.1** Must be engineered for mainstream surveillance systems.
 - **3.1.26.2** Must be Image Perfect™ firmware designed to ensure video footage capture in 24x7 surveillance workloads.
 - 3.1.26.3 Must include Skyhawk Health Management actively to help protect surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuild™, which provides three (3) times faster volume rebuilds over traditi9onal RAID rebuilds.
 - **3.1.26.4** RV sensors built-in allow drives to maintain performance in multi-bay systems.

- **3.1.26.5** Three (3) year rescue data recovery service plan.
- **3.1.26.6** ATA streaming support enables recordings from up to sixty-four (64) cameras.
- 3.1.26.7 Interface: SATA 6Gb/s.
- **3.1.26.8** CMR recording technology.
- **3.1.26.9** 5400 RPM
- **3.1.26.10** Up to 16 drive bays supported.
- **3.1.26.11** Maximum sustained transfer rate OD 180MB/s.
- **3.1.26.12** 256MB Cache.
- **3.1.26.13** 600,000 Load and Unload Cycles.
- **3.1.26.14** Nonrecoverable Read Errors Rate, Maximum 1 per 10E14.
- **3.1.26.15** 8,760 power-on hours per year.
- **3.1.26.16** Mean time between failures (MTBF) hours, 1,000,000 hours.
- **3.1.26.17** Drive Design: Air.
- **3.1.26.18** Hard Drive size (H x W x D) 1.028" x 4.01" x 5.78"
- **3.1.27** Contract Item 27: Seagate Skyhawk 8TB Surveillance Hard Drive (ST8000VE001), or Equal.
 - **3.1.27.1** Must be engineered for mainstream surveillance systems.
 - **3.1.27.2** Must be Image PerfectTM firmware designed to ensure video footage capture in 24x7 surveillance workloads.
 - 3.1.27.3 Must include Skyhawk Health Management actively to help protect surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuild™, which provides three (3) times faster volume rebuilds over traditi9onal RAID rebuilds.
 - **3.1.27.4** RV sensors built-in allow drives to maintain performance in multi-bay systems.
 - **3.1.27.5** Three (3) year rescue data recovery service plan.
 - **3.1.27.6** Rated for 2M hours MTBF and a 550TB/year workload rate for more than 3x that of standard surveillance hard drives.
 - 3.1.27.7 Interface: SATA 6Gb/s.
 - **3.1.27.8** CMR recording technology.
 - **3.1.27.9** 7200 RPM
 - **3.1.27.10** Unlimited drive bays supported.
 - **3.1.27.11** Maximum sustained transfer rate OD 234MB/s.
 - **3.1.27.12** 256MB Cache.
 - **3.1.27.13** 32 AI Channels.
 - **3.1.27.14** Up to 120 AI real time capture events/sec.
 - **3.1.27.15** Up to 96 AI real time compare events/sec.
 - **3.1.27.16** Maximum Internal data transfer rate (MB/s up to 2850).

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- **3.1.27.17** Load and Unload cycles 300,000.
- **3.1.27.18** Nonrecoverable Read Errors Rate, Maximum 1 per 10¹⁵.
- **3.1.27.19** 8,760 power-on hours per year.
- **3.1.27.20** Mean time between failures (MTBF) hours, 2,000,000 hours.
- **3.1.27.21** Drive Design: Air.
- **3.1.27.22** Drive size: (W x D x H) 4" x 5.8' x 1"
- **3.1.28** Contract Item 28: Seagate Skyhawk 10TB Surveillance Hard Drive (ST10000VE001), or Equal.
 - **3.1.28.1** Must be engineered for mainstream surveillance systems.
 - 3.1.28.2 Must be Image Perfect™ firmware designed to ensure video footage capture in 24x7 surveillance workloads.
 - 3.1.28.3 Must include Skyhawk Health Management actively to help protect surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuild™, which provides three (3) times faster volume rebuilds over traditi9onal RAID rebuilds.
 - **3.1.28.4** RV sensors built-in allow drives to maintain performance in multi-bay systems.
 - **3.1.28.5** Three (3) year rescue data recovery service plan.
 - **3.1.28.6** Rated for 2M hours MTBF and a 550TB/year workload rate for more than 3x that of standard surveillance hard drives. Backed by a five (5) year limited warranty.
 - 3.1.28.7 Interface: SATA 6Gb/s.
 - **3.1.28.8** CMR recording technology.
 - **3.1.28.9** 7200 RPM
 - **3.1.28.10** Unlimited drive bays supported.
 - **3.1.28.11** Supports up to 64 HD cameras.
 - **3.1.28.12** Maximum sustained transfer rate OD 245MB/s.
 - **3.1.28.13** 256MB Cache.
 - **3.1.28.14** 32 AI Channels.
 - **3.1.28.15** Up to 120 AI real time capture events/sec.
 - **3.1.28.16** Up to 96 AI real time compare events/sec.
 - **3.1.28.17** 600,000 Load and Unload cycles.
 - **3.1.28.18** Nonrecoverable Read Errors Rate, Maximum 1 per 10E15.
 - **3.1.28.19** 8,760 power-on hours per year.
 - **3.1.28.20** Mean time between failures (MTBF) hours, 2,000,000 hours.
 - **3.1.28.21** Drive Design: Air.
 - **3.1.28.22** Hard Drive size: (H x W x D) 1.028" x 4.01" x 5.78"
- 3.1.29 Contract Item 29: Seagate Skyhawk 12TB Surveillance Hard Drive

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(ST12000VE001), or Equal.

- **3.1.29.1** Must be engineered for mainstream surveillance systems.
- 3.1.29.2 Must be Image Perfect™ firmware designed to ensure video footage capture in 24x7 surveillance workloads.
- **3.1.29.3** Must include Skyhawk Health Management actively to help protect surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuild™, which provides three (3) times faster volume rebuilds over traditi9onal RAID rebuilds.
- **3.1.29.4** RV sensors built-in allow drives to maintain performance in multi-bay systems.
- **3.1.29.5** Three (3) year rescue data recovery service plan.
- **3.1.29.6** Rated for 2M hours MTBF and a 550TB/year workload rate for more than 3x that of standard surveillance hard drives. Backed by a five (5) year limited warranty.
- 3.1.29.7 Interface: SATA 6Gb/s.
- **3.1.29.8** CMR recording technology.
- **3.1.29.9** 7200 RPM
- **3.1.29.10** Unlimited drive bays supported.
- **3.1.29.11** Supports up to 64 HD cameras.
- **3.1.29.12** Maximum sustained transfer rate OD 250MB/s.
- **3.1.29.13** 256MB Cache.
- **3.1.29.14** 32 AI Channels.
- **3.1.29.15** Up to 120 AI real time capture events/sec.
- **3.1.29.16** Up to 96 AI real time compare events/sec.
- **3.1.29.17** 600,000 Load and Unload cycles.
- **3.1.29.18** Drive Design Helium
- **3.1.29.19** Hard drive size (H x W x D) 1.03" x 4.01" x 5.79"
- **3.1.30** Contract Item 30: Mounting Bracket for Vitek NDAA Compliant 4MP Bullet IP Camera (TVC-TNB4RMA4), or Equal.
 - **3.1.30.1** Junction Box: VT-JB08.
 - **3.1.30.2** Pole Mount Bracket: VT-TPLMT.
 - **3.1.30.3** Corner Mount Bracket: VT-TCNMT.
- **3.1.31** Contract Item 31: Mounting Bracket for Vitek NDAA Compliant 5MP Dome IP Camera (TND5RMEA), or Equal.
 - **3.1.31.1** Junction Box: VT-TJB010
 - **3.1.31.2** Wall Mount: VT-TWMT-A2
 - **3.1.31.3** Pendant Mount: VT-TPDMT-A2
 - **3.1.31.4** Semi Flush Mount: VT-TFMT-L2

Transcendent Dome Camera (VTD-TND6FPN), or Equal.

3.1.32.1 Pedestal Mount: VT-TPDM-F

3.1.32.2 Wall Mount: VT-TWM-F

3.1.32.3 Junction Box: VT-TJB-F1

3.1.33 Contract Item 33: Mounting Bracket for – Vitek NDAA Compliant 8MP 180°

3.1.32 Contract Item 32: Mounting Bracket for – Vitek NDAA Compliant 6MP 360°

Transcendent Bullet Camera (VTC-TNB8X4MS), or Equal.

3.1.33.1 Corner Mount: VT-TCNMT-W

3.1.33.2 Pole Mount: VT-TPLMT-W

3.1.34 Contract Item 34: Mounting Bracket for – Vitek NDAA Compliant 8MP PTZ

Camera (VT-TPTZ32HRAN-8PNS), or Equal.

3.1.34.1 Wall Mount: VT-TP23HR-WM.

3.1.34.2 Pendent/Ceiling Pole Mount: VT-TPT20HR-PM.

3.1.35 Alternative "or Equal" Submission:

3.1.35.1 Alternate bids that are equal to, meet, or exceed the mandatory requirements and specifications will be considered. All alternative bids must be accompanied by sufficient documentation and/or samples to allow for a complete evaluation. Failure to submit documentation for an "or equal" product with the Vendors bid, will result in vendor's bid being disqualified.

4 CONTRACT AWARD:

- 4.1 **Contract Award:** The Contract is intended to provide Agency with a purchase price on all Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.
- 4.2 **Piggyback Clause:** The WV Division of Administrative Services (DAS) reserves the right to extend the terms, conditions, and prices of this contract to other Agencies/Institutions who express an interest in piggybacking on this contract. Each of the piggyback Agencies/Institutions will issue their own purchasing documents for the goods/services. Vendor agrees that DAS shall bear no responsibility or liability for any agreements between Vendor and the other Agency/Institutions who desires to exercise this option.
- 4.3 **Consumer Price Index (CPI):** Said contract shall be for a base period of one (1) year, with four (4) one (1) year renewal options. Automatic renewals are prohibited. Vendor and Agency must mutually agree in writing to the renewal of Page 107 of 111

said contract. There shall be no contract price increases within the first twelve (12) contract months from the date of the award of the contract.

After the expiration of the initial twelve (12) contract month period. The Vendor may, no less than thirty (30) days prior to the contract anniversary date, request a price adjustment in writing. Said price adjustment will be evaluated based on the prior year Consumer Price Index (CPI) compared to the current year CPI, or 3%, whichever is less. All price adjustments must be approved by the Agency prior to implementation, at Agency's sole discretion. Approval of price adjustments is not guaranteed. Agency will issue a Change Order to said contract for any approved price adjustment(s).

- 4.4 **Pricing Pages:** Vendor must complete the Pricing Pages by providing a unit cost for the contract items listed on the Pricing Pages. Vendor must complete the Pricing Pages in their entirety as failure to do so will result in Vendor's bid being disqualified. A no bid entered on the Pricing Pages will result in Vendor's bid being disqualified.
- 4.5 Any product or service not on the Agency provided Pricing Pages will not be allowable. The state cannot accept alternate pricing pages, failure to use Exhibit A Pricing Pages will lead to disqualification of Vendors bid. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Vendor should electronically enter the information into the Pricing Page and through wvOASIS, if available, or as an electronic document. In most cases, the Vendor can request an electronic copy of the Pricing Page for bid purposes by sending an email request to the following address: Herbert.M.Skeens@wv.gov.

5 ORDERING AND PAYMENT:

- 5.1 **Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written form of communication. Vendor may, but is not required to, accept online orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 5.2 **Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6 DELIVERY AND RETURN:

6.1 **Delivery Time:** Vendor shall deliver standard orders within thirty (30) working days for delivery after Agency orders are received. Vendor shall deliver emergency orders within fifteen (15) working day(s) after orders are received. Vendor shall ship all orders in

accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.

- 6.2 **Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.
- 6.3 **Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.
- 6.4 **Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.5 **Return Due to Agency Error**: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7 VENDOR DEFAULT:

- 7.1 The following shall be considered a vendor default under this Contract.
 - **7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
 - **7.1.2** Failure to comply with other specifications and requirements contained herein.
 - **7.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
 - **7.1.4** Failure to remedy deficient performance upon request.

- 7.2 The following remedies shall be available to the Agency upon default.
 - **7.2.1** Immediate cancellation of the Contract.
 - 7.2.2 Immediate cancellation of one or more release orders issued under this Contract.
 - **7.2.3** Any other remedies available in law or equity.

8 MISCELLANEOUS:

- 8.1 **No Substitutions:** Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 8.2 **Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 8.3 **Proprietary Systems/Equipment:** Nothing on the security camera system can be proprietary. Proprietary systems will not be accepted. The contractor must sign and notarize an affidavit agreeing to this.
- 8.4 **Next Generation Equipment:** Agency reserves the right to substitute newer, next generation equipment in place of Contract Items, at pricing equal to or less than current contract pricing. Next generation equipment must be compatible with the equipment contract originally offered by the Vendor. Agency must approve all next generation equipment before it is implemented.
- 8.5 **NDAA Compliance:** All recording equipment including NVR's, DVR's, Video Management System, and cameras must be NDAA Compliant.
- 8.6 **Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 8.7 **Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Vendor should list its Contract manager and his or her contact information below.

Contract Manager:	Audrey Brown	
Telephone Number:	910-220-5494	
Fax Number:		
Email Address:	abrown@iisysinc.com	

Exhibit A - Pricing Page ARFQ 0608 DCR2400000088

Security Cameras & Equipment - WV Division of Corrections & Rehabilitation

Contract Item	Item Description	Alternative "Or Equal" Submission	Unit Cost	Unit of Measure
Number		-		
3.1.1	Vitek - NDAA Compliant 8 - Channel Network Video Recorder or NVR, or Equal	WRN-810S 8TB	\$2,818.79	Ea
3.1.2	Vitek - NDAA Compliant 16 - Channel Network Video Recorder or NVR, or Equal	WRN-1610S 18TB	\$4,703.99	Ea
3.1.3	Vitek - NDAA Compliant 32 - Channel Network Video Recorder or NVR, or Equal	WRN-1610S - 18TB + 16 Port PoE Network Swicth	\$5,349.81	Ea
3.1.4	Vitek - NDAA Compliant Hybrid Digital Video Recorder or DVR/NVR, or Equal	HRX-1635 (only 18 channels total) - 16TB	\$2,711.99	Ea
3.1.5	Vitek - NDAA Compliant 4MP Bullet IP Camera, or Equal	QNO-7080R	\$523.59	Ea
3.1.6	Vitek - NDAA Compliant 5MP Dome IP Camera, or Equal	QNV-C8083R	\$652.79	Ea
3.1.7	Vitek - NDAA Compliant 6MP 360° IP Panoramic Dome Camera, or Equal	XNF-9010RV	\$1,084.19	Ea
3.1.8	Vitek - NDAA Compliant 8MP 180° IP Panoramic Bullet Camera, or Equal	XNF-9010RV	\$1,084.19	Ea
3.1.9	Vitek - NDAA Compliant 4MP PTZ IP Camera, or Equal	XNP-C8253R	\$3,765.59	Ea
3.1.10	Vitek - NDAA Compliant 8MP PTZ IP Camera, or Equal	XNP-C9253R	\$4,040.39	Ea
3.1.11	Vitek - NDAA Compliant 2MP HD Analog Dome Camera, or Equal	HCV-6080R	\$286.79	Ea
3.1.12	Vitek - NDAA Compliant 8MP Analog Dome Camera, or Equal	ACV-8081R (only 5mp)	\$223.19	Ea
3.1.13	Vitek - NDAA Compliant 2MP HD Analog Bullet Camera, or Equal	HCO-6080R	\$286.79	Ea
3.1.14	Vitek - NDAA Compliant 8MP Analog Bullet Camera, or Equal	ACO-8020R (only 5mp)	\$95.00	Ea
3.1.15	Vitek - NDAA Compliant Video Management System, or Equal	WAVE-PRO-01 (need one per camera, but each recorder comes with 4 licenses)	\$136.78	Ea
3.1.16	Extreme Networks Products 16 Port Network Switch, or Equal	5320-16P-4XE-DC	\$5,155.00	Ea
3.1.17	Extreme Networks Products 24 Port Newtork Switch, or Equal	5320-24T-24S-4XE-XT	\$5,525.00	Ea
3.1.18	Extremet Networks Products 48 Port Network Switch or Equal	5320-48T-8XE	\$6,133.00	Ea
3.1.19	Extreme Networks Power Cord, or Equal	PWR CORDNEMA10ANEMA 5-15PC13ST	18	Ea
3.1.20	APC Back-UPS 850VA, 120V, USB charging portsn NEMA outlets, or Equal	APC BX850M Back-UPS Pro BX850M, Compact Tower, 850VA, AVR, LCD, 120V	\$215.14	Ea
3.1.21	Ditek Uninterruptible Power Supplye, or Equal	DTK-UPS600	\$126.70	Ea
3.1.22	Western Digital Purple Surveillance Hard Drive, or Equal	WD141PURP	\$483.99	Ea
3.1.23	SanDisk 240GB SSD Plus, or Equal	SanDisk 240GB SSD Plus	\$24.99	Ea
3.1.24	Seagate Skyhawk 2TB Surveillance Hard Drive, or Equal	Seagate ST2000VXA17 2TB Skyhawk 5400 Hard Drive, SATA 6Gb/s	\$80.64	Ea
3.1.25	Seagate Skyhawk 4TB Surveillance Hard Drive, or Equal	Seagate ST4000VX016 SkyHawk 3.5" Internal,4TB	\$122.94	Ea
3.1.26	Seagate Skyhawk 6TB Surveillance Hard Drive, or Equal	Seagate ST6000VXA09 SkyHawk 3.5" 6TB Surveillance Hard Drive	\$196.79	Ea
3.1.27	Seagate Skyhawk 8TB Surveillance Hard Drive, or Equal	Seagate ST8000VE001 Skyhawk AI 3.5 Hard Drive, SATA 6Gb/s, 8TB	\$271.13	Ea
3.1.28	Seagate Skyhawk 10TB Surveillance Hard Drive, or Equal	Seagate ST10000VE001 Skyhawk AI 3.5 Hard Drive, SATA 6Gb/s, 10TB	\$324.02	Ea
3.1.29	Seagate Skyhawk 12TB Surveillance Hard Drive, or Equal	Seagate ST12000VE001 Skyhawk AI 3.5 Hard Drive, SATA 6Gb/s, 12TB	\$390.79	Ea
3.1.30	Mounting Brackets forVitek NDAA Compliant 4MP Bullet IP Camera, or Equal	, , , , , , , , , , , , , , , , , , ,	,	
3.1.30.1	Junction Box: VT-JB08 or Equal	SBO-100B1	\$43.19	Ea
3.1.30.2	Pole Mount Bracket: VT-TPLMT or Equal	SBP-302PM & SBO-100B1	\$109.19	Ea
3.1.30.3	Corner Mount Bracket: VT-TCNMT or Equal - We don't have a true corner for this	SBP-302PM & SBO-100B1	\$109.19	Ea
3.1.31	Mounting Brackets forVitek NDAA Compliant 5MP Dome IP Camera, or Equal		,	
3.1.31.1	Junction Box: VT-TJB010 or Equal	SBV-140BW	\$43.19	Ea
3.1.31.2	Wall Mount: VT-TWMT-A2 or Equal	SBP-140HMW & SBP-300WMW1	\$111.58	Ea
3.1.31.3	Pendant Mount: VT-TPDMT-A2 or Equal	SBP-300CMW1 & SBP-140HMW	\$111.58	Ea
3.1.31.4	Semi Flush Mount: VT-TFMT-L2 or Equal	SHD-1400FPW	\$68.51	Ea
	Mounting Bracket for Vitek NDAA Compliant 6MP 360° Transcendent Dome Camera, or Equal	2110-7-400LLAA	16.500	Ld
3.1.32		CDD 150UNAWA 9 CDD 200CNAWA	¢111 F0	Fo
3.1.32.1	Pedestal Mount: VT-TPDM-F or Equal	SBP-160HMW1 & SBP-300CMW1	\$111.58	Ea

3.1.32.2	Wall Mount: VT-TWM-F or Equal	SBP-160HMW1 & SBP-300WMW1	\$111.58	Ea
3.1.32.3	Junction Box: VT-TJB-F1 or Equal	SBV-160BW	\$43.19	Ea
3.1.33	Mounting Bracket for Vitek NDAA Compliant 8MP 180° Transcendent Bullet Camera, or Equal			
3.1.33.1	Corner Mount: VT-TCNMT-W or Equal	SBP-160HMW1 + SBP-300WMW1 + SBP-300KMW1	\$198.67	Ea
3.1.33.2	Pole Mount: VT-TPLMT-W or Equal	SBP-160HMW1 + SBP-300WMW1 + SBP-300PMW2	\$198.67	Ea
3.1.34	Mounting Bracket for Vitek NDAA Compliant 8MP PTZ Camera or Equal.			
3.1.34.1	Wall Mount: VT-TP23HR-WM or Equal	VT-TP23HR-WM	\$111.58	Ea
3.1.34.2	Pendent/Ceiling Pole Mount: VT-TPT20HR-PM or Equal	SBP-156HMW + SBP-300CMW1	\$111.58	Ea

Bidder/Vendor Information:

Name: IIS, Inc.	
Address: 460 Boardwalk Dr. Youngsville NC 27596	
Phone No.: 919-488-5000	
Fax No.:	
Email Address: abrown@iisysinc.com	
Authorized Signature: Audrey Brown	

NOTES:

Estimated Quantity	Total Cost
50	\$140,939.50
50	\$235,199.50
50	\$267,490.50
50	\$135,599.50
500	\$261,795.00
500	\$326,395.00
500	\$542,095.00
500	\$542,095.00
500	\$1,882,795.00
500	\$2,020,195.00
500	\$143,395.00
500	\$111,595.00
500	\$143,395.00
500	\$47,500.00
100	\$13,678.00
50	\$257,750.00
50	\$276,250.00
50	\$306,650.00
100	\$1,800.00
50	\$10,757.00
50	\$6,335.00
50	\$24,199.50
250	\$6,247.50
50	\$4,032.00
50	\$6,147.00
50	\$9,839.50
50	\$13,556.50
50	\$16,201.00
50	\$19,539.50
150	\$6,478.50
150	\$16,378.50
150	\$16,378.50
125	\$5 <i>,</i> 398.75
125	\$13,947.50
125	\$13,947.50
125	\$8,563.75
150	\$16,737.00

150	\$16,737.00
150	\$6,478.50
250	\$49,667.50
250	\$49,667.50
250	\$27,895.00
250	\$27,895.00
Overall Total Cost	\$8,049,637.00