

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW)

ADDENDUM No. 5
April 30, 2026

PROJECT: Mainline Video Upgrade Phase 2
Project No. TP-0000033287

BID DUE DATE: May 6, 2026; 02:00 P.M.

FROM: Miami-Dade County DTPW
Capital Improvements Division
111 NW First Street, 14th Floor
Miami, FL 33128
305.375.2930

TO: Prospective Bidders and Interested Parties

This Addendum forms part of the project solicitation documents and will be incorporated into the Contract Documents, as applicable. Insofar as the Original Contract Documents, Drawings and Specifications are inconsistent, this Addendum shall govern. Please acknowledge receipt of this Addendum, at the time of bid submittal to Miami-Dade County, in the space provided on the "Acknowledgement of Addenda Form" provided with the project solicitation documents. Failure to acknowledge receipt of all addenda may be cause for disqualification.

CHANGES TO BID FORM:

1. The Bid Form under Section 2 of the Solicitation Documents is hereby deleted and replaced in its entirety with attached "REVISED BID FORM FOR ADDENDUM NO. 5".

CHANGES TO THE TECHNICAL SPECIFICATIONS:

The Technical Specifications are revised as follows:

1. Add "Attachment A - Products Salient Characteristics"
2. Add "Attachment B - Supported Device List -Camera"
3. Add "Attachment C - HPE CTO DL380 Technical Scope of Work"

All other terms and conditions of the Solicitation Documents remain unchanged.

END OF ADDENDUM NO. 5



Tiondra Wright,

Chief Capital Improvements Division

Department of Transportation and Public Works (DTPW)

TW:lh

c: Laura Hernandez, DTPW

Katherine Fernandez, DTPW

Clerk of the Board

Colin Armorer DTPW

Laurie Johnson, SBD

Project File

Caesar Suarez, SBD

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
BID DOCUMENTS
MAINLINE VIDEO UPGRADE PHASE 2

RPQ NO. TP-00000033287

To: Miami-Dade County

Bid Opening Date: _____

Board of County Commissioners

Bid Opening Time: _____

Miami, Florida

Local Time

Gentlemen:

We _____

Bidder's Name

have received, have examined and are familiar with the Contract Documents bearing the title **REPLACEMENT OF EMERGENCY DOORS AT METRORAIL AND METROMOVER STATIONS- RPQ NO. TP-00000020837**, the forms for the Submittal of Bids and have included the cost of their provisions, in our Bid. We have examined, are familiar with, and do accept the conditions of the Work site and other conditions affecting the Work.

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Failure to acknowledge receipt of all addenda may cause the bid to be considered not responsive to the invitation, which would require rejection of the bid.

PROJECT NAME: REPLACEMENT OF EMERGENCY DOORS AT METRORAIL AND METROMOVER STATIONS

PROJECT RPQ No.: TP0000033287

REVISED BID FORM FOR ADDENDUM NO.5

IF THIS PROPOSAL IS ACCEPTED, THE UNDERSIGNED BIDDER AGREES TO COMPLETE ALL WORK IN ACCORDANCE WITH THIS CONTRACT WITHIN THE CONTRACT DURATION SPECIFIED IN THE CONTRACT DOCUMENTS. PRICING SHALL BE INCLUSIVE OF ALL REQUIREMENTS TO COMPLETE THE SCOPE OF WORK AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

Item No.	Division of Work:	Unit	Quantity	Total Price
1	Pricing shall be Inclusive of all Requirements to Complete the Scope of Work in Accordance with Contract Documents (General Requirements)	LS	1	\$
2	Cost for Drawings and Permits.	LS	1	\$
Rail Work				
3	Palmetto Station	LS	1	\$
4	Okeechobee Station	LS	1	\$
5	Hialeah Station	LS	1	\$
6	Tri -Rail Station	LS	1	\$
7	Northside Station	LS	1	\$
8	Dr. Martin Luther King Jr.	LS	1	\$

REVISED BID FORM FOR ADDENDUM NO.5

9	Brownsville Station	LS	1	\$
10	Earlington Heights Station	LS	1	\$
11	Allapattah Station	LS	1	\$
12	Santa Clara Station	LS	1	\$
13	UHealth /Jackson Station	LS	1	\$
14	Culmer Station	LS	1	\$
15	Historic Overtown/Lyric Theater Station	LS	1	\$
16	Government Center Station	LS	1	\$
17	Brickell Station	LS	1	\$
18	I-95GAP TIE 1	LS	1	\$
19	Vizcaya Station	LS	1	\$

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20	Coconut Grove	LS	1	\$
21	Douglas Road Station	LS	1	\$
22	University Station	LS	1	\$
23	South Miami Station	LS	1	\$
24	Dadeland North Station	LS	1	\$
25	Dadeland South Station, Trail Track and Bus Bay	LS	1	\$
26	Miami International Airport Station-NVR#1	LS	1	\$
27	Miami International Airport Station 2- NVR#2	LS	1	\$
28	DLN PARKING 1-NVR #1	LS	1	\$
29	DLN PARKING 2-NVR#2	LS	1	\$
30	SPCC Central Control	LS	1	\$

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31	ATPS	LS	1	\$
32	ITPS1/ITCH	LS	1	\$
33	ITPS2	LS	1	\$
34	Lehman Rail-NVR #1	LS	1	\$
35	Lehman Rail-NVR #2	LS	1	\$
36	Palmetto Station TPSS	LS	1	\$
37	One(1) Fallover Server	LS	1	\$
Mover Work				
38	Metromover Station project locations for CCTV Installations -96 TB DL380- GEN 11	22		\$
39	10th Street	LS	1	\$
40	11 Street	LS	1	\$

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41	3rd Street	LS	1	\$
42	5th Street	LS	1	\$
43	8th Street	LS	1	\$
44	Adrienne Arsht	LS	1	\$
45	Bayfront	LS	1	\$
46	Brickell	LS	1	\$
47	College Bayside	LS	1	\$
48	College North	LS	1	\$
49	Financial	LS	1	\$
50	First Street	LS	1	\$
51	Freedom Tower	LS	1	\$

REVISED BID FORM FOR ADDENDUM NO.5

52	Government Center	LS	1	\$
53	Knight Center	LS	1	
54	Maintenance Facility Camera/CBD	LS	1	
55	Miami Ave	LS	1	
56	Museum	LS	1	
57	Park West	LS	1	
58	Riverwalk	LS	1	
59	School Board	LS	1	
60	Wilkie S Ferguson	LS	1	
61	One (1) Fallover Server	LS	1	

REVISED BID FORM FOR ADDENDUM NO.5

Camera Installation				
62	Two Workstations in the Security Office	LS	1	
63	Install 1 multi-sensor Camera at the Dadeland North Metrorail Station	LS	1	
64	Install 1 multi-sensor Camera at the Palmetto Metrorail Station	LS	1	
65	HPE DL380 GEN 11 - 160 TB, includes HPE 3-year support licenses costs	LS	35	\$
66	HPE DL380 GEN 11 - 96 TB, includes HPE 3-year support licenses costs	LS	23	\$
67	Office of Safety and Security Workstations	LS	2	\$
68	Cameras and Installation Total	LS	2	\$
69	Genetec Federated Security Center License: GSC-1SCFED	LS	58	\$
70	Genetec Camera Connection Omnicast Professional License: GSC-Om-P-1C	LS	1200	\$
71	Genetec Advantage Omnicast Pro Camera: ADV-CAM-1Y	LS	1200	\$

REVISED BID FORM FOR ADDENDUM NO.5

72	Site License for Security Center Mobile App. Connections-GSC-1 MobileSTU	LS	1	\$
73	Genetec Camera Failover connection license: GSC-Om-P-1F	LS	120	\$
74	Genetec Video Analytics - Object Shape and Attribute recognition	LS	110	\$
75	Genetec Video Analytics - Intrusion and Line Crossing Detection	LS	110	\$
76	NVR System Integration	DAYS	60	\$

BASE BID TOTAL \$ _____

(Instructions: The spaces provided in the Total Price Column(s) for the Bid Line Item(s) must be filled in and no spaces left blank. The sum of the Bid Line Items must represent your Base Bid Total. Failure to submit a complete and accurate Bid Form may result in your bid found non-responsive.)

A TEN PERCENT (10%) CONTINGENCY ALLOWANCE AND OTHER DEDICATED ALLOWANCES AS REQUIRED WILL BE ADDED TO THE BASE BID TOTAL AS STIPULATED IN THE SPECIAL PROVISIONS.

A. CONVICTION DISCLOSURE:

Pursuant to Section 2-8.6 of the Code of Miami-Dade County, any individual, corporation, partnership, joint venture or other legal entity having an officer, director, or executive who has been convicted of a felony during the past ten (10) years shall disclose this information at the time of bid submittal.

Place a check mark here **only** if the Bidder has such conviction to disclose to comply with this requirement.

B. WAIVER OF CONFIDENTIALITY AND TRADE SECRET TREATMENT OF BID:

The Bidder acknowledges and agrees that the submittal of the Bid is governed by Florida's Government in the Sunshine Laws and Public Records Laws, as set forth in Florida Statutes Section 286.011 and Florida Statutes Chapter 119. As such, all material submitted as part of, or in support of, the Bid will be available for public inspection after opening of bids and may be considered by the County in public.

PROJECT RPQ No.: TP0000033287

REVISED BID FORM FOR ADDENDUM NO.5

By submitting a bid pursuant to this solicitation, Bidder agrees that all such materials may be considered to be public records. The Bidder shall not submit any information in response to this solicitation which the Bidder considers to be a trade secret, proprietary or confidential. In the event that the Bid contains a claim that all or a portion of the Bid submitted contains confidential, proprietary or trade secret information, the Bidder, by signing below, knowingly and expressly waives all claims made that the Bid, or any part thereof no matter how indicated, is confidential, proprietary or a trade secret and authorizes the County to release such information to the public for any reason.

LICENSE NO. _____ BIDDER'S NAME _____

BIDDER'S TELEPHONE NUMBER _____ BIDDER'S ADDRESS _____

BIDDER'S FEIN NUMBER _____ BIDDER'S SIGNATURE _____

THE BIDDER UNDERSTANDS AND AGREES THAT THE BASE BID TOTAL AND ALL APPLICABLE ALLOWANCES ARE INCLUSIVE OF ALL WORK NECESSARY TO COMPLETE THE SCOPE OF WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS, AND IF THIS PROPOSAL IS ACCEPTED, THE BIDDER AGREES TO ENTER INTO AND EXECUTE THE CONTRACT WITH THE NECESSARY BOND AND ACCEPT THE ABOVE BASE BID, INCLUSIVE OF ALL ALLOWANCES, AS FULL COMPENSATION FOR THE WORK PERFORMED UNDER THIS CONTRACT.

ATTACHMENT A

Products Salient Characteristics

SERVER PROCUREMENT SALIENT CHARACTERISTICS

HPE ProLiant DL380 Gen11 Server Solutions (96TB & 160TB)

1. SERVER SALIENT CHARACTERISTICS

The SALIENT Characteristics of the HPE SERVERS are provided herein.

No third-party, refurbished, or gray-market equipment will be accepted. All equipment must be new and procured through authorized HPE channels.

2. HARDWARE SPECIFICATIONS – PLEASE REFER TO HARDWARE CONFIGURATION TABLE FOR ADDITIONAL SALIENT CHARACTERISTICS FOR BOTH SERVER SOLUTIONS.

Configuration A: 96TB Server Solution

- **Base Chassis:** HPE ProLiant DL380 Gen11 12LFF NC CTO Server (P52533-B21)
- **Processors:** Two (2) Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processors (P67090-B21)
- **Memory:** 64GB Total - Four (4) HPE 16GB Single Rank x8 DDR5-5600 Registered Smart Memory (P64705-B21)
- **Storage (Data):** 96TB Raw - Eight (8) HPE 12TB SAS 12G Business Critical 7.2K LFF LP HDDs (881781-B21)
- **Storage (Boot):** One (1) HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device (P48183-B21) with required internal cable kit (P52152-B21)
- **Storage Controller:** One (1) HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller (P47781-B21) with 96W Smart Storage Battery (P01366-B21) and required enablement cables (P48918-B21, P56995-B21)
- **Networking:** One (1) Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter (P51181-B21) with CPU1 to OCP2 x8 Enablement Kit (P51911-B21)
- **Power & Cooling:** Two (2) HPE 800W Flex Slot Platinum Hot Plug Power Supplies (P38995-B21), standard heat sinks (P49145-B21), and High Performance Fan Kit (P48820-B21)
- **Accessories:** Gen11 2U Bezel Kit (P50400-B21), Easy Install Rail 3 Kit (P52341-B21), and Cable Management Arm (P22020-B21)

Configuration B: 160TB Server Solution

- **Base Chassis:** HPE ProLiant DL380 Gen11 12LFF NC CTO Server (P52533-B21)
- **Processors:** Two (2) Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processors (P67090-B21)
- **Memory:** 64GB Total - Four (4) HPE 16GB Single Rank x8 DDR5-5600 Registered Smart Memory (P64705-B21)
- **Storage (Data):** 160TB Raw - Eight (8) HPE 20TB SAS 12G Business Critical 7.2K LFF LP HDDs (P53553-B21)
- **Storage (Boot):** One (1) HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage

Device (P48183-B21) with required internal cable kit (P52152-B21)

- **Storage Controller:** One (1) HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller (P47781-B21) with 96W Smart Storage Battery (P01366-B21) and required enablement cables (P48918-B21, P56995-B21)
- **Networking:** One (1) Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter (P51181-B21) with CPU1 to OCP2 x8 Enablement Kit (P51911-B21)
- **Power & Cooling:** Two (2) HPE 800W Flex Slot Platinum Hot Plug Power Supplies (P38995-B21), standard heat sinks (P49145-B21), and High Performance Fan Kit (P48820-B21)
- **Accessories:** Gen11 2U Bezel Kit (P50400-B21), Easy Install Rail 3 Kit (P52341-B21), and Cable Management Arm (P22020-B21)

3. MANAGEMENT LICENSING

Both server configurations (96 TB AND 160 TB) must each include the following management license:

- **HPE OneView Advanced with iLO Advanced:** 1-server tracking LTU, inclusive of a 3-Year 24x7 Support Bundle (Part Number: E5Y44A).

4. WARRANTY AND SUPPORT REQUIREMENTS

The vendor must provide unified, co-termed manufacturer support for both the hardware and the management software for a period of **Three (3) Years**.

Support packages must include **Defective Media Retention (DMR)** to comply with organizational data security policies, allowing the retention of failed storage drives for physical destruction.

The following exact support SKUs must be applied to each server configuration:

1. **Hardware Support:** HPE 3-Year Tech Care Basic Service with Defective Media Retention for DL380 Gen11 (Part Number: HU4B3A300DK)
2. **Software Support:** HPE 3-Year Tech Care Basic Service for HPE OneView (Part Number: HU4B3A3 SVN)

5. DELIVERY INSTRUCTIONS

- Vendor must provide tracking information and serial numbers upon shipment.

**HPE DL380 GEN 11-- 96TB SERVER SOLUTION
SERVER SALIENT CHARACTERISTICS**

Part Number	Description	Qty
P52533-B21	HPE ProLiant DL380 Gen11 12LFF NC Configure-to-order Server	1
P67090-B21	Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processor for HPE	2
P64705-B21	HPE 16GB (1x16GB) Single Rank x8 DDR5-5600 CAS-46-45-45 EC8 Registered Smart Memory Kit	4
881781-B21	HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	8
P01366-B21	HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	1
P48918-B21	HPE ProLiant DL360 Gen11 Storage Controller Enablement Cable Kit	1
P47781-B21	HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller	1
P51181-B21	Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	1
P38995-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
P51911-B21	HPE ProLiant DL360 Gen11 CPU1 to OCP2 x8 Enablement Kit	1
P56995-B21	HPE ProLiant DL380 Gen11 LFF Front Tri-Mode Cable Kit	1
P48820-B21	HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit	1
P50400-B21	HPE Gen11 2U Bezel Kit	1
P22020-B21	HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit	1
P35876-B21	HPE CE Mark Removal FIO Enablement Kit	1
P48183-B21	HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device	1
P49145-B21	HPE ProLiant DL380 Gen11 Standard Heat Sink Kit	2
P52152-B21	HPE ProLiant DL380 Gen11 NS204i-u Internal Cable Kit	1
P52341-B21	HPE ProLiant DL3XX Gen11 Easy Install Rail 3 Kit	1
E5Y44A	HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	1
HU4B3A3 SVN	HPE One View w/Ilo Support	1
HU4B3A300DK	HPE DL380 Gen11 Support	1

**HPE DL380 GEN 11-- 160TB SERVER SOLUTION
SERVER SALIENT CHARACTERISTICS**

Part Number	Description	Qty
P52533-B21	HPE ProLiant DL380 Gen11 12LFF NC Configure-to-order Server	1
P67090-B21	Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processor for HPE	2
P64705-B21	HPE 16GB (1x16GB) Single Rank x8 DDR5-5600 CAS-46-45-45 EC8 Registered Smart Memory Kit	4
P53553-B21	HPE 20TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	8
P01366-B21	HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	1
P48918-B21	HPE ProLiant DL360 Gen11 Storage Controller Enablement Cable Kit	1
P47781-B21	HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller	1
P51181-B21	Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	1
P38995-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
P51911-B21	HPE ProLiant DL360 Gen11 CPU1 to OCP2 x8 Enablement Kit	1
P56995-B21	HPE ProLiant DL380 Gen11 LFF Front Tri-Mode Cable Kit	1
P48820-B21	HPE ProLiant DL380/DL560 Gen11 2U High Performance Fan Kit	1
P50400-B21	HPE Gen11 2U Bezel Kit	1
P22020-B21	HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit	1
P35876-B21	HPE CE Mark Removal FIO Enablement Kit	1
P48183-B21	HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device	1
P49145-B21	HPE ProLiant DL380 Gen11 Standard Heat Sink Kit	2
P52152-B21	HPE ProLiant DL380 Gen11 NS204i-u Internal Cable Kit	1
P52341-B21	HPE ProLiant DL3XX Gen11 Easy Install Rail 3 Kit	1
E5Y44A	HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	1
HU4B3A3 SVN	HPE One View w/Ilo Support	1
HU4B3A300DK	HPE DL380 Gen11 Support	1

AXIS P3747-PLVE Panoramic Camera

4x5 MP multidirectional with AI analytics

AXIS P3747-PLVE offers four channels with 5 MP per channel at 20 fps. It includes 360° IR illumination with individually controllable LEDs and a removable IR cut filter. All four sensors are fully motorized and PTRZ functionality ensures ease of installation and configuration. Plus, presets make it easy to configure multiple devices. This discreet camera can be mounted on ceilings for complete 360° coverage. Or corner mounted for 270° coverage. It supports advanced analytics on the edge. Furthermore, Axis Edge Vault, a hardware-based cybersecurity platform, safeguards the device and offers FIPS 140-2 Level 2 certified secure key storage and operations.

- > **4x5 MP at 20 fps per channel**
- > **Remote pan, tilt, roll, zoom (PTRZ)**
- > **Support for powerful analytics**
- > **360° IR illumination with individually controlled LEDs**
- > **Built-in cybersecurity with Axis Edge Vault**



AXIS P3747-PLVE Panoramic Camera

Camera

Image sensor

4x 1/2.78" progressive scan RGB CMOS
Pixel size 2.0 µm

Lens

Varifocal, 3.18–7.42 mm, F1.6–2.7
Horizontal field of view: 360° (90°–40° per sensor)
Vertical field of view: 71.5°–30°
Minimum focus distance: 1.5 m (4.9 ft)
Fixed iris, IR corrected, remote zoom and focus

Day and night

Automatic IR-cut filter

Minimum illumination

Color: 0.15 lux at 50 IRE, F1.6
B/W: 0 lux at 50 IRE, F1.6 (with IR on)

Shutter speed

5 MP
WDR on: 1/19500 s to 1 s
WDR off: 1/16000 s to 1 s
Quad HD
WDR on: 1/18000 s to 1 s
WDR off: 1/15000 s to 1 s

Camera adjustment

Pan ±180°, tilt -23° to -150°, roll +5° to -95°

System on chip (SoC)

Model

ARTPEC-8

Memory

4096 MB RAM, 8192 MB Flash

Compute capabilities

Deep learning processing unit (DLPU)

Video

Video compression

H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles
H.265 (MPEG-H Part 2/HEVC) Main Profile
Motion JPEG

Resolution

4:3 4x 2592x1944 (4x 5 MP) to 4x 640x480
16:9 4x 2560x1440 (4x Quad HD) to 4x 640x360

Frame rate

5 MP: Up to 20/20 fps (50/60 Hz) in all resolutions
Quad HD: Up to 25/30 fps (50/60 Hz) in all resolutions

Video streaming

Multiple, individually configurable streams in H.264, H.265 and Motion JPG
Axis Zipstream technology in H.264 and H.265
Controllable frame rate and bandwidth
VBR/ABR/MBR H.264/H.265
Low latency mode
Video streaming indicator

Signal-to-noise ratio

>55 dB

WDR

Forensic WDR: Up to 120 dB depending on scene

Noise reduction

Spatial filter (2D noise reduction)
Temporal filter (3D noise reduction)

Image settings

Saturation, contrast, brightness, sharpness, white balance, day/night threshold, local contrast, tone mapping, exposure mode, exposure zones, barrel distortion correction, compression, rotation: 0°, 90°, 180°, 270° including corridor format, mirroring, text and image overlay, dynamic text and image overlay, privacy masks, polygon privacy mask

Image processing

Axis Zipstream, Forensic WDR, Lightfinder, OptimizedIR

Audio

Input and output through portcast technology accessories or edge-to-edge pairing. For more information, see *Optional accessories* and *Edge-to-edge*.

Audio streaming

Two-way (half duplex, full duplex) via network speaker pairing technology

Network

Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS¹, HTTP/2, TLS¹, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

System integration

Application Programming Interface

Open API for software integration, including VAPIX®, metadata and AXIS Camera Application Platform (ACAP); specifications at axis.com/developer-community. ACAP includes Native SDK.

One-click cloud connection

ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specifications at onvif.org

Video management systems

Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at axis.com/vms.

Onscreen controls

Autofocus

Video streaming indicator

IR illumination

Privacy masks

Media clip

Edge-to-edge

Speaker pairing

Event conditions

Device status: above/below/within operating temperature, IP address removed, new IP address, network lost, system ready, live stream active, casing open, shock detected

Edge storage: recording ongoing, storage disruption, storage health issues detected

I/O: manual trigger, virtual input

MQTT: stateless

Scheduled and recurring: schedule

Video: average bitrate degradation, day-night mode, tampering

Event actions

Day-night mode

Illumination: use lights, use lights while the rule is active

LEDs: flash status LED, flash status LED while the rule is active

MQTT: publish

Notification: HTTP, HTTPS, TCP and email

Overlay text

Recordings: record, record while the rule is active

Security: erase configuration

SNMP traps: send, send while the rule is active

Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email

WDR mode

Built-in installation aids

Pixel counter, remote zoom and focus, level grid, barrel distortion correction, preset positions, pan-tilt-roll: designed to withstand at least 200 full movement cycles

Analytics

Applications

Included

AXIS Object Analytics, AXIS Scene Metadata, AXIS Video Motion Detection, active tampering alarm

Supported

Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap

Multisensor analytics

4 channels analytics support, AXIS Object Analytics

AXIS Object Analytics

Object classes: humans, vehicles (types: cars, buses, trucks, bikes, other)

Scenarios: line crossing, object in area, time in area, crossline counting, occupancy in area, motion in area, motion line crossing

Up to 10 scenarios

Other features: triggered objects visualized with trajectories, color-coded bounding boxes and tables

Polygon include/exclude areas

Perspective configuration

ONVIF Motion Alarm event

AXIS Scene Metadata

Object classes: humans, faces, vehicles (types: cars, buses, trucks, bikes), license plates

Object attributes: vehicle color, upper/lower clothing color, confidence, position

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).

Approvals

Product markings

UL/cUL, CE, FCC, ICES, KC, VCCI, RCM, BSMI

Supply chain

TAA compliant

EMC

CISPR 35, CISPR 32 Class A, EN 55035, EN 55032 Class A, EN 50121-4, EN 61000-6-1, EN 61000-6-2

Australia/New Zealand: RCM AS/NZS CISPR 32 Class A

Canada: ICES-3(A)/NMB-3(A)

Japan: VCCI Class A

Korea: KS C 9835, KS C 9832 Class A

USA: FCC Part 15 Subpart B Class A

Taiwan: CNS 15936

Railway: IEC 62236-4

Safety

CAN/CSA C22.2 No. 62368-1 ed. 3, IEC/EN/UL 62368-1 ed. 3, IEC/EN 62471 risk group exempt, RCM AS/NZS 62368.1:2022, IS 13252

Environment

IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, IEC/EN 60529 IP66, IEC/EN 62262 IK10, MIL-STD-810H (Method 501.7, 502.7, 505.7 506.6, 507.6 509.7), NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9)

Network

NIST SP500-267

Cybersecurity

ETSI EN 303 645, BSI IT Security Label, FIPS 140

Cybersecurity

Edge security

Software: Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, password protection, Axis Cryptographic Module (FIPS 140-2 level 1)

Hardware: Axis Edge Vault cybersecurity platform
Secure keystore: TPM 2.0 (CC EAL4+, FIPS 140-2 Level 2), system-on-chip security (TEE)
Axis device ID, signed video, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)², IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR, HTTPS/HSTS², TLS v1.2/v1.3², Network Time Security (NTS), X.509 Certificate PKI, host-based firewall

Documentation

Axis OS Hardening Guide

Axis Vulnerability Management Policy

Axis Security Development Model

Axis OS Software Bill of Material (SBOM)

To download documents, go to axis.com/support/cybersecurity/resources

To read more about Axis cybersecurity support, go to axis.com/cybersecurity

General

Casing

IP66-, NEMA 4X- and IK10-rated

Polycarbonate hard-coated dome

Aluminum and plastic casing, polycarbonate (PC) dome

Color: white NCS S 1002-B

For repainting instructions, go to the product's support page. For information about the impact on warranty, go to axis.com/warranty-implication-when-repainting.

Mounting

Mounting bracket with junction box holes (double-gang, single-gang, 4" square, and 4" octagon)

1/2" (M20) conduit side entry

Power

Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 2 Class 4

Typical 10.8 W, max 23.7 W

Connectors

Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE

Audio: Audio and I/O connectivity via portcast technology

IR illumination

Optimized IR with power-efficient, long-life 850 nm IR LEDs

Range of reach 20 m (65.6 ft) at 0 lux, 30 m (98.4 ft) at 0.1 lux

2. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (ey@cryptsoft.com).

Storage

Support for microSD/microSDHC/microSDXC card
Support for SD card encryption (AES-XTS-Plain64 256bit)
Recording to network-attached storage (NAS)
For SD card and NAS recommendations see axis.com

Operating conditions

-40 °C to 50 °C (-40 °F to 122 °F)
Minimum temperature for PTR functionality: -30 °C (-22 °F)
Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)
Start-up temperature: -30 °C
Humidity 10–100% RH (condensing)

Storage conditions

-40 °C to 65 °C (-40 °F to 149 °F)
Humidity 5–95% RH (non-condensing)

Dimensions

For the overall product dimensions, see the dimension drawing in this datasheet.
Effective Projected Area (EPA): 0.030862 m² (0.33 ft²)

Weight

3 kg (6.6 lb)

Box content

Camera, installation guide, connector guard, cable gasket, mounting plate, dome casing

Optional accessories

AXIS TP3107 Pendant Kit, AXIS TP3108-E Pendant Kit, AXIS TP3840-E Dome Casing Black, AXIS TP3841-E Dome Smoked, AXIS T90D Illuminators, AXIS T8415 Wireless Installation Tool, AXIS T6112 Mk II Audio and I/O Interface, AXIS Surveillance Cards
For more accessories, go to axis.com/products/axis-p3747-plve#accessories

System tools

AXIS Site Designer, AXIS Device Manager, product selector, accessory selector, lens calculator
Available at axis.com

Languages

English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

Warranty

5-year warranty, see axis.com/warranty

Part numbers

Available at axis.com/products/axis-p3747-plve#part-numbers

Sustainability

Substance control

PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709
RoHS in accordance with EU RoHS Directive 2011/65/EU/ and 2015/863, and standard EN IEC 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see echa.europa.eu

Materials

Renewable carbon-based plastic content: 40% (recycled: 13%, bio-based: 25%, carbon capture based: 2%)
Screened for conflict minerals in accordance with OECD guidelines
To read more about sustainability at Axis, go to axis.com/about-axis/sustainability

Environmental responsibility

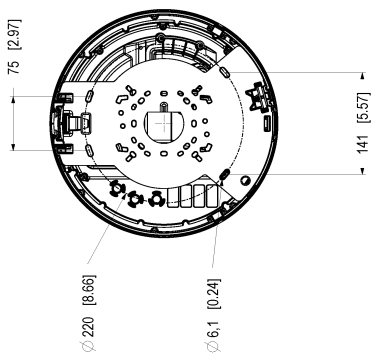
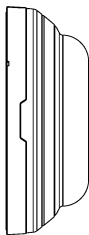
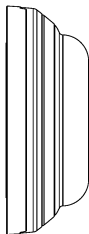
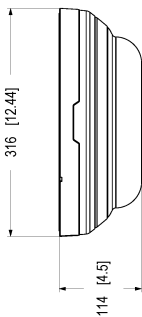
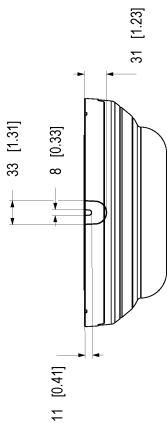
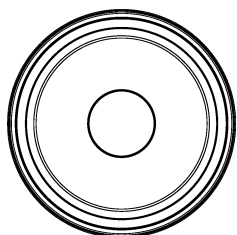
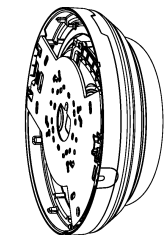
axis.com/environmental-responsibility
Axis Communications is a signatory of the UN Global Compact, read more at unglobalcompact.org

Detect, Observe, Recognize, Identify (DORI)

	DORI definition	Distance (wide)	Distance (tele)
Detect	25 px/m (8 px/ft)	60.5 m (198.4 ft)	147.9 m (485.1 ft)
Observe	63 px/m (19 px/ft)	24 m (78.7 ft)	58.7 m (192.5 ft)
Recognize	125 px/m (38 px/ft)	12.1 m (39.7 ft)	29.6 m (97.1 ft)
Identify	250 px/m (76 px/ft)	6.1 m (20.0 ft)	14.8 m (48.5 ft)

The DORI values are calculated using pixel densities for different use cases as recommended by the EN-62676-4 standard. The calculations use the center of the image as the reference point and consider lens distortion. The possibility to recognize or identify a person or object depends on factors such as object motion, video compression, lighting conditions, and camera focus. Use margins when planning. The pixel density varies across the image, and the calculated values can differ from the distances in the real world.

Dimension drawing



Highlighted capabilities

AXIS Object Analytics

AXIS Object Analytics is a preinstalled, multifeatured video analytics that detects and classifies humans, vehicles, and types of vehicles. Thanks to AI-based algorithms and behavioral conditions, it analyzes the scene and their spatial behavior within – all tailored to your specific needs. Scalable and edge-based, it requires minimum effort to set up and supports various scenarios running simultaneously.

50%. Zipstream also includes three intelligent algorithms, which ensure that relevant forensic information is identified, recorded, and sent in full resolution and frame rate.

For more information, see [axis.com/glossary](https://www.axis.com/glossary)

Axis Edge Vault

Axis Edge Vault is the hardware-based cybersecurity platform that safeguards the Axis device. It forms the foundation that all secure operations depend on and offer features to protect the device's identity, safeguard its integrity and protect sensitive information from unauthorized access. For instance, **secure boot** ensures that a device can boot only with **signed OS**, which prevents physical supply chain tampering. With signed OS, the device is also able to validate new device software before accepting to install it. And the **secure keystore** is the critical building-block for protecting cryptographic information used for secure communication (IEEE 802.1X, HTTPS, Axis device ID, access control keys etc.) against malicious extraction in the event of a security breach. The secure keystore and secure connections are provided through a Common Criteria or FIPS 140 certified hardware-based cryptographic computing module.

Furthermore, signed video ensures that video evidence can be verified as untampered. Each camera uses its unique video signing key, which is securely stored in the secure keystore, to add a signature into the video stream allowing video to be traced back to the Axis camera from where it originated.

To read more about Axis Edge Vault, go to [axis.com/solutions/edge-vault](https://www.axis.com/solutions/edge-vault).

Pan-tilt-roll-zoom (PTRZ)

PTRZ functionality includes the ability of a camera to rotate around its vertical, lateral, and longitudinal axes. The camera's focal length is adjustable to achieve a narrower or wider field of view. Thanks to the remote functionality, you can quickly adjust and readjust the camera view remotely over the network, saving time and effort. PTRZ functionality also gives you the flexibility to make future adjustments easily, ensuring less disruption, less downtime, and that no dispatched technician is needed.

Zipstream

The Axis Zipstream technology preserves all the important forensic in the video stream while lowering bandwidth and storage requirements by an average of

Attachment B - Supported Device List -Camera

Supported Device List - CAMERA



Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
Avigilon	H4F series	Camera	Unit Dewarping, Software Dewarping, IPv6 Support	H264, MJPEG	Bi-directional	1/1	Security Center: 5.9.4.0	Regular	3.30.0.70
Avigilon	ENC-4P-H264	Encoder	IPv6 Support, PTZ Supported	H264	Bi-directional	0/4	Security Center: 5.7 (SR4)	Analog	2.2.0.72
Avigilon	9W-H3-3MH-DP1-B	Camera	-	H264	Bi-directional	1/1	Security Center: 5.7 (SR4)	Regular	3.2.0.44
Avigilon	9W-H3-3MH-DO1-B	Camera	-	H264	Bi-directional	1/1	Security Center: 5.7 (SR4)	Regular	3.2.0.44
Avigilon	9W-H3-3MH-DC1	Camera	-	H264	Bi-directional	1/1	Security Center: 5.7 (SR4)	Regular	3.2.0.44
Avigilon	9C-H5A-3MH	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.5.0	Regular	4.66.0.26
Avigilon	9C-H4A-3MH-180	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	8L-H4PRO-B	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	1/1	Security Center: 5.7 (SR6)	Regular	4.4.0.56
Avigilon	8.0C-H6SL series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.10.0	Regular	5.14.0.32
Avigilon	8.0C-H6A series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	8.0C-H5A-PTZ-DC36	Camera	Edge Recording, PTZ Supported	H265, H264, MJPEG	Bi-directional	2/2	Security Center: 5.11.1.0 (On_Prem)	Regular	4.30.0.36

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
							Driver Pack 11.1.0		
Avigilon	8.0C-H5A series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.38.0.32
Avigilon	640S-H4A-THC-BO50	Camera	IPv6 Support	H264	Bi-directional	1/1	Security Center: 5.7 (SR5)	Regular	3.22.0.36
Avigilon	6.0C-H6A series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	5.0L-H4A-D1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	5.0L-H4A-BO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	5.0C-H6SL series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	5.0C-H5SL series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.10.0.96
Avigilon	5.0C-H5A series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.38.0.32
Avigilon	5.0-H3-DO1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-D1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	4.0C-H6A series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	4.0C-H5A series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.38.0.32
Avigilon	32C-H5A-4MH	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center:	Regular	4.66.0.26

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
							5.11.0.1 Driver Pack 11.5.0		
Avigilon	32C-H4A-4MH-360	Camera	IPv6 Support, Edge Recording	H265, H264	Bi-directional	1/1	Security Center: 5.8.1.1	Regular	4.36.0.22
Avigilon	320S-H4A-THC-BO24	Camera	IPv6 Support	-	Bi-directional	1/1	Security Center: 5.7 (SR5)	Regular	3.22.0.36
Avigilon	3.0W-H3-DO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	3.0W-H3-D1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	3.0W-H3-D1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	3.0C-H5SL series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.10.0.96
Avigilon	3.0C-H4VI-RO1-IR	Camera	IPv6 Support, Edge Recording	H264, MJPEG	Bi-directional	2/2	Security Center: 5.10.0.0 Driver Pack 10.9.0	Regular	4.14.0.100
Avigilon	3.0C-H4SL-D1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	3.0C-H4SL-BO1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	3.0C-H4A-DO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	3.0C-H4A-BO2-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	24C-H4A-3MH-270	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	20C-H4A-4MH-360	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
Avigilon	2.0W-H3A-BO1-IR	Camera	-	H264	Bi-directional	0/1	Security Center: 5.3 (SR4)	Regular	3.6.0.26
Avigilon	2.0W-H3-BO2-IR	Camera	-	-	No	0/0	-	Regular	-
Avigilon	2.0C-H5A series	Camera	IPv6 Support, Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.86.0.20
Avigilon	2.0C-H4SL-D1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	2.0C-H4SL-D1	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	2.0C-H4PTZ-DP30-B	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	2/2	Security Center: 5.8.1.5	Regular	3.30.0.40
Avigilon	2.0C-H4PTZ-DP30	Camera	IPv6 Support, Edge Recording, PTZ Supported	MJPEG	Bi-directional	2/2	Security Center: 5.8.1.5	Regular	4.10.0.38
Avigilon	2.0C-H4M-D1	Camera	-	H264, MJPEG	No	0/0	Security Center: 5.8.1.3	Regular	3.30.0.44
Avigilon	2.0C-H4IRPTZ-DP30-WP	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	4/2	Security Center: 5.5 (GA)	Regular	4.10.0.38
Avigilon	2.0C-H4IRPTZ-DP30	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	4/2	Security Center: 5.5 (GA)	Regular	4.10.0.38
Avigilon	2.0C-H4A series	Camera	IPv6 Support, Edge Recording	H264, MJPEG	Bi-directional	1/1	Security Center: 5.5 (GA)	Regular	4.4.4.70
Avigilon	2.0-H3M-DP1-BL	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3-DO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
Avigilon	2.0-H3-DC1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3-B1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	15C-H4A-3MH-180	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	12W-H3-4MH-DC1	Camera	-	H264	Bi-directional	1/1	Security Center: 5.7 (SR4)	Regular	3.2.0.44
Avigilon	12C-H4A-4MH-360	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	12.0W-H5A-FE-DO1-IR	Camera	Unit Dewarping, Software Dewarping, Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.10.2.0 (On_Prem) Driver Pack 10.13.0	Regular	4.44.0.16
Avigilon	10.0C-H5DH-DO1-IR	Camera	-	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.10.0.0 Driver Pack 10.11.0	Regular	4.14.0.112
Avigilon	1.3C-H5SL series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.10.0.96
Avigilon	1.3C-H4M-D1-IR	Camera	-	H265, H264, MJPEG	No	0/0	Security Center: 5.8.1.3	Regular	3.30.0.44
Avigilon	1.0C-H4PTZ-DP45	Camera	IPv6 Support, Edge Recording, PTZ Supported	H264, MJPEG	Bi-directional	2/2	Security Center: 5.8.1.5	Regular	4.10.0.38
Avigilon	1.0C-H4PTZ-DC45	Camera	IPv6 Support, Edge Recording, PTZ Supported	H264, MJPEG	Bi-directional	2/2	Security Center: 5.8.1.5	Regular	4.10.0.38
Avigilon	1.0C-H4IRPTZ-DP45-WP	Camera	IPv6 Support,	H264, MJPEG	Bi-directional	4/2	Security Center: 5.5 (GA)	Regular	4.10.0.38

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
			PTZ Supported						
Avigilon	1.0C-H4IRPTZ-DP45	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	4/2	Security Center: 5.5 (GA)	Regular	4.10.0.38
Avigilon	1.0C-H4A series	Camera	IPv6 Support, Edge Recording	H264, MJPEG	Bi-directional	1/1	Security Center: 5.5 (GA)	Regular	4.4.4.70
Avigilon	H5A-MOD-2P	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.0 Driver Pack 11.2.0	Regular	4.26.0.16
Avigilon	9C-H4A-3MH-270	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	8.0C-H5A-PTZ-DP36	Camera	Edge Recording, PTZ Supported	H265, H264, MJPEG	Bi-directional	2/2	Security Center: 5.11.1.0 (On_Prem) Driver Pack 11.1.0	Regular	4.30.0.36
Avigilon	8.0C-H5A-FE-DO1-IR	Camera	Unit Dewarping, Software Dewarping, Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.10.2.0 (On_Prem) Driver Pack 10.13.0	Regular	4.44.0.16
Avigilon	8.0-H4A-BO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	8.0-H4A series	Camera	IPv6 Support, Edge Recording	H264, MJPEG	Bi-directional	1/1	Security Center: 5.5 (GA)	Regular	4.4.4.70
Avigilon	640S-H4A-THC-BO24	Camera	IPv6 Support	H264	Bi-directional	1/1	Security Center: 5.7 (SR5)	Regular	3.22.0.36
Avigilon	640S-H4A-THC-BO12	Camera	IPv6 Support	H264	Bi-directional	1/1	Security Center: 5.7 (SR5)	Regular	3.22.0.36
Avigilon	6.0C-H5DH-	Camera	-	H265, H264, MJPEG	Bi-directional	1/1	Security Center:	Regular	4.14.0.112

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
	DO1-IR						5.10.0.0 Driver Pack 10.11.0		
Avigilon	6.0C-H5A series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.38.0.32
Avigilon	5.0L-H4A-DP1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	5.0L-H4A-BO2-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	5.0L-H4A series	Camera	IPv6 Support, Edge Recording	H264, MJPEG	Bi-directional	1/1	Security Center: 5.5 (GA)	Regular	4.4.4.70
Avigilon	5.0-H3-DP1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-DO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-D1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-BO2-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-BO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-B3	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	5.0-H3-B2	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	40C-H5PRO-B	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.1.0 (On_Prem) Driver Pack 11.3.0	Regular	4.38.0.32
Avigilon	4.0C-H5A-PTZ-DP36	Camera	Edge Recording, PTZ Supported	H265, H264, MJPEG	Bi-directional	2/2	Security Center: 5.11.0.1	Regular	4.30.0.36

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
							Driver Pack 11.1.0		
Avigilon	4.0C-H5A-PTZ-DC36	Camera	Edge Recording, PTZ Supported	H265, H264, MJPEG	Bi-directional	2/2	Security Center: 5.11.0.1 Driver Pack 11.1.0	Regular	4.30.0.36
Avigilon	320S-H4A-THC-BO50	Camera	IPv6 Support	H264	Bi-directional	1/1	Security Center: 5.7 (SR5)	Regular	3.22.0.36
Avigilon	320S-H4A-THC-BO12	Camera	IPv6 Support	H264	Bi-directional	1/1	Security Center: 5.7 (SR5)	Regular	3.22.0.36
Avigilon	3.0W-H3-BO2-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	3.0W-H3-BO1-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	3.0C-H6SL series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	3.0C-H4SL-DO1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	3.0C-H4SL-D1	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	3.0C-H4M-D1-IR	Camera	-	H264, MJPEG	No	0/0	Security Center: 5.8.1.3	Regular	4.14.0.102
Avigilon	3.0C-H4M-D1	Camera	-	H264, MJPEG	No	0/0	Security Center: 5.8.1.3	Regular	3.30.0.44
Avigilon	3.0C-H4A series	Camera	IPv6 Support, Edge Recording	H264, MJPEG	Bi-directional	1/1	Security Center: 5.5 (GA)	Regular	4.4.4.70
Avigilon	26C-H5PRO-B	Camera	Edge Recording	H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.10.0	Regular	4.66.0.42

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
Avigilon	24C-H5A-3MH	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.5.0	Regular	4.66.0.26
Avigilon	24C-H4A-3MH-180	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	20C-H5A-4MH	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.5.0	Regular	4.66.0.26
Avigilon	2.0W-H3-BO1-IR	Camera	-	H264	Bi-directional	0/1	Security Center: 5.4 (SR2)	Regular	2.6.0.140
Avigilon	2.0MP-HD-H264-D1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0MP-HD-H264-B1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0C-H6SL series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	2.0C-H6A series	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.80.0.22
Avigilon	2.0C-H5SL series	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.8.1.2	Regular	4.10.0.96
Avigilon	2.0C-H5A-PTZ-DP36	Camera	Edge Recording, PTZ Supported	H265, H264, MJPEG	Bi-directional	2/2	Security Center: 5.11.1.0 (On_Prem) Driver Pack 11.1.0	Regular	4.30.0.36
Avigilon	2.0C-H5A-IRPTZ-DP40-WP	Camera	Edge Recording, PTZ Supported	H265, H264, MJPEG	Bi-directional	2/2	Security Center: 5.11.0.1 Driver Pack 11.7.0	Regular	4.60.0.24

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
Avigilon	2.0C-H4SL-DO1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	2.0C-H4SL-BO1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	2.0C-H4PTZ-DC30-B	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	2/2	Security Center: 5.8.1.5	Regular	3.30.0.40
Avigilon	2.0C-H4PTZ-DC30	Camera	IPv6 Support, Edge Recording, PTZ Supported	H264, MJPEG	Bi-directional	2/2	Security Center: 5.8.1.5	Regular	4.10.0.38
Avigilon	2.0C-H4M-D1-IR	Camera	-	H264, MJPEG	No	0/0	Security Center: 5.8.1.3	Regular	3.30.0.44
Avigilon	2.0C-H4A-BO2-IR	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	3.24.2.94
Avigilon	2.0C-H3A-DO1	Camera	-	-	No	0/0	-	Regular	-
Avigilon	2.0-H3M-DO1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3M-DC1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3-DP1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3-DO1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3-D1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	2.0-H3-B2	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	16L-H4PRO-B	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	1/1	Security Center: 5.7 (SR6)	Regular	4.4.0.56

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
Avigilon	15C-H5A-3MH	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.5.0	Regular	4.66.0.26
Avigilon	15C-H4A-3MH-270	Camera	IPv6 Support	H265, H264, MJPEG	Bi-directional	0/1	Security Center: 5.8.1.1	Regular	4.16.0.24
Avigilon	12W-H3-4MH-DP1-B	Camera	-	H264	Bi-directional	1/1	Security Center: 5.7 (SR4)	Regular	3.2.0.44
Avigilon	12W-H3-4MH-DO1-B	Camera	-	H264	Bi-directional	1/1	Security Center: 5.7 (SR4)	Regular	3.2.0.44
Avigilon	12L-H4PRO-B	Camera	IPv6 Support, PTZ Supported	H264, MJPEG	Bi-directional	1/1	Security Center: 5.7 (SR6)	Regular	4.4.0.56
Avigilon	12C-H5A-4MH	Camera	Edge Recording	H265, H264, MJPEG	Bi-directional	1/1	Security Center: 5.11.0.1 Driver Pack 11.5.0	Regular	4.66.0.26
Avigilon	1.3C-H4SL-DO1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	1.3C-H4SL-D1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	1.3C-H4SL-D1	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	1.3C-H4SL-BO1-IR	Camera	IPv6 Support	H264, MJPEG	No	0/0	Security Center: 5.5 (GA)	Regular	3.30.0.110
Avigilon	1.3C-H4M-D1	Camera	-	H264, MJPEG	No	0/0	Security Center: 5.8.1.3	Regular	3.30.0.44
Avigilon	1.0W-H3-BO1-IR	Camera	-	-	No	0/0	-	Regular	-
Avigilon	1.0-H3M-DC1	Camera	-	-	No	0/0	-	Regular	-
Avigilon	1.0-H3-DP1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140
Avigilon	1.0-H3-DC1	Camera	-	-	No	0/0	Security Center: 5.5	Regular	2.6.0.140

Attachment B - Supported Device List -Camera

Manufacturer	Model name	Device type	Features	Compression type	Audio	I/O	Product & version (Initial supported release)	License type	Latest firmware supported (SC)
							(GA)		
Avigilon	1.0-H3-D1	Camera	-	-	No	0/0	Security Center: 5.5 (GA)	Regular	2.6.0.140

SERVER PROCUREMENT SALIENT CHARACTERISTICS

HPE ProLiant DL380 Gen11 Server Solutions (96TB & 160TB)

1. SERVER SALIENT CHARACTERISTICS

The SALIENT Characteristics of the HPE SERVERS are provided herein.

No third-party, refurbished, or gray-market equipment will be accepted. All equipment must be new and procured through authorized HPE channels.

2. HARDWARE SPECIFICATIONS – PLEASE REFER TO HARDWARE CONFIGURATION TABLE FOR ADDITIONAL SALIENT CHARACTERISTICS FOR BOTH SERVER SOLUTIONS.

Configuration A: 96TB Server Solution

- **Base Chassis:** HPE ProLiant DL380 Gen11 12LFF NC CTO Server (P52533-B21)
- **Processors:** Two (2) Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processors (P67090-B21)
- **Memory:** 64GB Total - Four (4) HPE 16GB Single Rank x8 DDR5-5600 Registered Smart Memory (P64705-B21)
- **Storage (Data):** 96TB Raw - Eight (8) HPE 12TB SAS 12G Business Critical 7.2K LFF LP HDDs (881781-B21)
- **Storage (Boot):** One (1) HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device (P48183-B21) with required internal cable kit (P52152-B21)
- **Storage Controller:** One (1) HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller (P47781-B21) with 96W Smart Storage Battery (P01366-B21) and required enablement cables (P48918-B21, P56995-B21)
- **Networking:** One (1) Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter (P51181-B21) with CPU1 to OCP2 x8 Enablement Kit (P51911-B21)
- **Power & Cooling:** Two (2) HPE 800W Flex Slot Platinum Hot Plug Power Supplies (P38995-B21), standard heat sinks (P49145-B21), and High Performance Fan Kit (P48820-B21)
- **Accessories:** Gen11 2U Bezel Kit (P50400-B21), Easy Install Rail 3 Kit (P52341-B21), and Cable Management Arm (P22020-B21)

Configuration B: 160TB Server Solution

- **Base Chassis:** HPE ProLiant DL380 Gen11 12LFF NC CTO Server (P52533-B21)
- **Processors:** Two (2) Intel Xeon-Silver 4509Y 2.6GHz 8-core 125W Processors (P67090-B21)
- **Memory:** 64GB Total - Four (4) HPE 16GB Single Rank x8 DDR5-5600 Registered Smart Memory (P64705-B21)
- **Storage (Data):** 160TB Raw - Eight (8) HPE 20TB SAS 12G Business Critical 7.2K LFF LP HDDs (P53553-B21)
- **Storage (Boot):** One (1) HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage

Attachment C - HPE CTO DL380 Technical Scope of Work

Device (P48183-B21) with required internal cable kit (P52152-B21)

- **Storage Controller:** One (1) HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller (P47781-B21) with 96W Smart Storage Battery (P01366-B21) and required enablement cables (P48918-B21, P56995-B21)
- **Networking:** One (1) Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter (P51181-B21) with CPU1 to OCP2 x8 Enablement Kit (P51911-B21)
- **Power & Cooling:** Two (2) HPE 800W Flex Slot Platinum Hot Plug Power Supplies (P38995-B21), standard heat sinks (P49145-B21), and High Performance Fan Kit (P48820-B21)
- **Accessories:** Gen11 2U Bezel Kit (P50400-B21), Easy Install Rail 3 Kit (P52341-B21), and Cable Management Arm (P22020-B21)

3. MANAGEMENT LICENSING

Both server configurations (96 TB AND 160 TB) must each include the following management license:

- **HPE OneView Advanced with iLO Advanced:** 1-server tracking LTU, inclusive of a 3-Year 24x7 Support Bundle (Part Number: E5Y44A).

4. WARRANTY AND SUPPORT REQUIREMENTS

The vendor must provide unified, co-termed manufacturer support for both the hardware and the management software for a period of **Three (3) Years**.

Support packages must include **Defective Media Retention (DMR)** to comply with organizational data security policies, allowing the retention of failed storage drives for physical destruction.

The following exact support SKUs must be applied to each server configuration:

1. **Hardware Support:** HPE 3-Year Tech Care Basic Service with Defective Media Retention for DL380 Gen11 (Part Number: HU4B3A300DK)
2. **Software Support:** HPE 3-Year Tech Care Basic Service for HPE OneView (Part Number: HU4B3A3 SVN)

5. DELIVERY INSTRUCTIONS

- Vendor must provide tracking information and serial numbers upon shipment.