BIDS AND AWARDS COMMITTEE FOR GOODS AND SERVICES

SUPPLEMENTAL/BID BULLETIN No. 2022-06-001

This Supplemental Bid Bulletin is issued to amend/clarify the Terms of Reference under the associated component of PhilGEPS Bids Notice Abstract Reference Number: 8679693 entitled: **NEUST EYE IN THE SKY CCTV PROJECT.**

For the information and guidance of all Prospective Bidders, enumerated below is the final Terms of Reference for the above stated project.

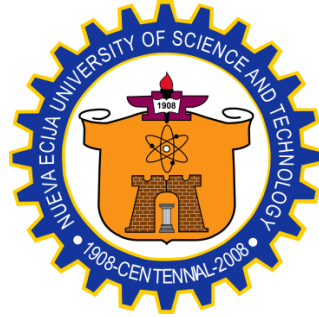Further, delivery period is hereby amended from 60CD to 120 CD.

All terms and conditions specified in the Bidding Documents inconsistent with this Bid Bulletin are hereby superseded and modified accordingly.

For information and guidance of all concerned.

Issued this 2nd day of June 2022, NEUST, Cabanatuan City.

DR. HONORATO P. PANAHON, Ph.D.
BAC Chairperson

NEUST EYE IN THE SKY CCTV PROJECT

SUPPLY, DELIVERY, DESIGN, INSTALLATION, CONFIGURATION, TESTING, TRAINING AND COMMISSIONING

TERMS OF REFERENCE

I. INTRODUCTION

The Nueva Ecija University of Science and Technology (NEUST) is a university located in the province of Nueva Ecija Central Luzon, Philippines with its flagship campus at Cabanatuan City. The university offers graduate and undergraduate courses in many specialized fields as well as vocational training programs.

The university was established in 1908 and celebrated its centennial year in 2008. It is one of the four 'Knowledge Eagle Universities of Nueva Ecija.

Nueva Ecija University of Science and Technology intends to upgrade its existing Video Surveillance System that includes a Command-and-Control style operator console, a windows-based Video Management Software System, and High-resolution IP based cameras.

II. OBJECTIVE

- To provide Nueva Ecija University of Science and Technology (NEUST) a video surveillance system that shall have a platform solution optimized for applications to view, store and managed real time and recorded video in a networked environment.
- To provide a video surveillance system that has highly scalable and reliable platform to enable customized network-based surveillance applications.
- The command center will eventually be interlinked with the different sub–command centers located at the different campuses of NEUST.

III. APPROVED BUDGET FOR THE CONTRACT

The Approved Budget for the Contract (ABC) is PHP 7,600,000.00

IV. BIDDER'S QUALIFICATIONS

1. The surveillance brand must have an authorized service center in the Philippines capable of handling service request.
2. The bidder or supplier must submit a duly stamped, notarized and sealed certification from the manufacturer stating that the availability of parts for the equipment shall be for a period of at least 10 years from the date of final acceptance.

3. The bidder or supplier must submit a certification that the radio equipment being offered is NTC typed approved.

4. The bidder or supplier must be the authorized distributor or representative of the manufacturer with local qualified and trained maintenance personnel in the Philippines.

5. Bidder shall offer a surveillance manufacturer that produces own hardware and develops its own software applications.

6. Bidder shall present their system showing the actual bandwidth consumption of each camera and specified resolution in order to identify the most efficient video compression.

7. The bidder/supplier must submit an understanding statement of compliance with all the provisions of the TOR, including all supplemental Bid Bulletin, which must be part of the Bidding Documents.

V. GENERAL SCOPE OF WORK AND DELIVERABLES

A. GENERAL SCOPE OF WORK

1. The work includes the furnishings of materials, consumable materials, facilities, civil works, labor, tools, equipment, test instruments, apparatus, specialties and other services necessary to complete the installation and commissioning of the project.

2. The contractor shall be responsible for the best suited locations for the surveillance cameras and shall follow NEUST rules and regulations.

3. Contractor shall be responsible for any additional electrical power requirements with the coordination and approval of NEUST administration.

4. The contractor will have access to the site (7) days a week starting the date of receipt of the notice to proceed, however, all works should be coordinated with NEUST on a weekly basis and can be revoked or suspended at any time in case of urgent operational need.

5. The contractor shall submit the following documentation to NEUST upon completion of the project:

   - System brochures and documentation for systems operational and maintenance and user manuals one (1) original and three (3) copies.

- Detailed equipment list stating the location, make model, serial numbers, firm ware among others.

- System and Workmanship Warranty or Guarantee

- Maintenance proposals

- Certificate of Completion and Acceptance

- Training certificate of attendees for Operations and maintenance of the system.

6. Must be capable to integrate existing cameras in the various campuses subject to compatibility with their system and the existing cameras.

VI. Technical Requirements

A. Summary of Requirements

NEUST – Sumacab Campus (Command Center)			
LOT	ITEM	QTY	TOTAL COST
	2MP 25X Zoom IP PTZ Network Camera	5	
	32CH 1.5U 4K Network Video Recorder	1	
	6TB HDD SURVEILLANCE GRADE HDD	1	
	CENTRAL SOFTWARE AND HARDWARE SERVER WITH PAID LICENSE	1	
	VIDEO 4K DECODER	2	
	55" SURVEILLANCE GRADE LED MONITOR	4	
	43" LED MONITOR	1	
	WORKSTATION FOR COMMAND CENTER	2	
	10 KVA UPS	1	
	42U SERVER CABINET	1	
	12U DATA CABINET	1	
	24 PORTS MANAGED GIGABIT SWITCH WITH SFP	1	
	NETWORK PTZ CONTROLLER	1	
	OUTDOOR WIRELESS BRIDGE	3	
	4 PORT FAST ETHERNET UNMANAGED POE SWITCH	3	
	PC SET FOR VIDEO MANAGEMENT SYSTEM	1	
	SUPPLY, DELIVERY & INSTALLATION	1	
	ESTABLISHMENT/CONSTRUCTION OF COMMAND CENTER FACILITIES: 5m x 5m command center with	1	

	comfort room, 1 unit - 2hp inverter split type air-conditioning, Built in Table and 3 office chairs		
	PORTABLE TWO-WAY RADIO WITH NTC LICENSE & LAND MOBILE CERTIFICATE FOR END-USE	5	
	IP RADIO WITH 1YR DATA LOAD	2	
	5GHz 300Mbps Outdoor CPE, WISP Long Range Wireless Bridge/AP	5	
	5GHz 300Mbps | P2P AP | Point to Point Access Point	2	
	Miscellaneous Materials (wires and connectors)		
			4,620,000.00
NEUST-General Tinio Street Campus			
LOT	2MP IP BULLET CAMERA	16	
	16CH 1.5U 4K Network Video Recorder	1	
	43" LED MONITOR	1	
	12U DATA CABINET	1	
	24 PORTS GIGABIT UNMANAGED SWITCH	1	
	6TB HDD SURVEILLANCE GRADE	3	
	4 PORT FAST ETHERNET UNMANAGED POE SWITCH	10	
	PC SET FOR VIDEO MANAGEMENT SYSTEM	1	
	SUPPLY, DELIVERY & INSTALLATION	1	
	PORTABLE TWO WAY RADIO WITH NTC LICENSE & LAND MOBILE CERTIFICATE FOR END-USE	5	
	IP RADIO WITH 1YR DATA LOAD	2	
	UPS 1600VA	1	
	Miscellaneous Materials (wires and connectors)		
			1,228,400.00
NEUST – San Isidro (Poblacion)			
LOT	2MP IP BULLET CAMERA	8	
	16CH 1.5U 4K Network Video Recorder	1	
	43" LED MONITOR	1	
	12U DATA CABINET	1	
	24 PORTS GIGABIT UNMANAGED SWITCH	1	
	6TB HDD SURVEILLANCE GRADE	1	
	4 PORT FAST ETHERNET UNMANAGED POE SWITCH	5	
	PC SET FOR VIDEO MANAGEMENT SYSTEM	1	
	SUPPLY, DELIVERY & INSTALLATION	1	
	PORTABLE TWO WAY RADIO WITH NTC LICENSE & LAND MOBILE CERTIFICATE FOR END-USE	5	

	IP RADIO WITH 1YR DATA LOAD	2	
	UPS 1600VA	1	
			875,800.00
NEUST – San Isidro (Tabon)			
LOT	2MP IP BULLET CAMERA	8	
	16CH 1.5U 4K Network Video Recorder	1	
	43" LED MONITOR	1	
	12U DATA CABINET	1	
	24 PORTS GIGABIT UNMANAGED SWITCH	1	
	6TB HDD SURVEILLANCE GRADE	1	
	4 PORT FAST ETHERNET UNMANAGED POE SWITCH	5	
	PC SET FOR VIDEO MANAGEMENT SYSTEM	1	
	SUPPLY, DELIVERY & INSTALLATION	1	
	PORTABLE TWO WAY RADIO WITH NTC LICENSE & LAND MOBILE CERTIFICATE FOR END-USE	5	
	IP RADIO WITH 1YR DATA LOAD	2	
	UPS 1600VA	1	
	Miscellaneous Materials (wires and connectors)		
			875,800.00
		TOTAL ABC	**7,600.000.00**

B. Submittals

    a. Manufacturer's hard (physical) or soft (electronic) datasheets

    b. Installation and operating manuals for any and all equipment required for a VMS

    c. Manufacturer's warranty documentation

    d. Preparation and submission of all necessary engineering, detailed electrical plans, technical specifications, detailed cost estimate and construction schedule.

    e. Submission of all construction/ installation records;

    f. Submission of as-built plans/ drawings, certificate of warranties, manuals and other documents necessary in the maintenance program of the project upon completion of the project.

C. Qualifications

a. This surveillance product shall be manufactured by an enterprise whose quality systems are in direct compliance with ISO-9001 protocols.

b. All system components shall be carefully tested and proven in actual use. Comprehensive repair and spare parts shall be given, for which the manufacturer shall provide warranty all installations, integration, testing, programming, system commission.

D. Delivery, Storage and Handling

a. Delivery

- Devices shall be delivered in the Manufacturer's unique, sealed, undamaged package.

- Any and all identification labels shall remain intact.

b. Storage and handling

- Devices shall be protected from mechanical and environmental conditions as designated by the manufacturer.

E. Technical Specifications

2MP 25X Zoom IP PTZ Network Camera
Accurate human and vehicle target classification and alarm based on deep learning algorithm
Support face capture. Up to 5 faces captured at the same time
1/2.8" Progressive Scan CMOS
Up to 1920 × 1080 @30fps resolution
Excellent low-light performance with powered-by-Dark Fighter technology
 25 × optical zoom, 16 × digital zoom
WDR, HLC, BLC, 3D DNR, Defog, Regional Exposure, Regional Focus
Up to 100 m IR distance
12 VDC & POE (802.3at)
Support H.265+/H.265 video compression

2MP IP Bullet Camera
- 1/2.8" Progressive Scan CMOS
- 1920 × 1080 @ 30fps
- F1.0 aperture, 2.8/4/6 mm fixed lens
- 120dB WDR
- H.265+, H.265, H.264+, H.264
- IP67
- Built-in micro SD/SDHC/SDXC slot, up to 256 GB

● 24/7 full time color

32CH 1.5U Network Video Recorder
Features and Functions Professional and Reliable
New logical and visualized GUI design
Dual-OS design to ensure high reliability of system running
ANR technology to enhance the storage reliability when the network is disconnected Video Input and Transmission
Up to 16/32-ch 12 MP IP cameras can be connected
Connectable to the third-party network cameras Compression and Recording
H.265+ compression effectively reduces the storage space and costs by up to 75%
Full channel recording at up to 12 MP resolution HD Video Output
HDMI/VGA output provided
HDMI video output at up to 4K (3840 × 2160) resolution Storage and Playback
Up to 4 SATA interfaces for HDD connection
12-ch synchronous playback at up to 1080p resolution
Normal/Important/Custom video playback
Important files management
HDD health monitoring Smart &POS Function
Supports multiple VCA (Video Content Analytics) events
Smart search for the selected area in the video; and smart playback to improve the playback efficiency
POS information overlay on live view and playback
POS triggered recording and alarm Network & Ethernet Access
Hik-Connect for easy network management
Two Gigabit Ethernet network interfaces

16CH 1.5U Network Video Recorder
Features and Functions Professional and Reliable
New logical and visualized GUI design
Dual-OS design to ensure high reliability of system running
ANR technology to enhance the storage reliability when the network is disconnected Video Input and Transmission
Up to 16/32-ch 12 MP IP cameras can be connected
Connectable to the third-party network cameras Compression and Recording
H.265+ compression effectively reduces the storage space and costs by up to 75%
Full channel recording at up to 12 MP resolution HD Video Output λ HDMI/VGA output provided
HDMI video output at up to 4K (3840 × 2160) resolution Storage and Playback
Up to 4 SATA interfaces for HDD connection
12-ch synchronous playback at up to 1080p resolution
Normal/Important/Custom video playback
Important files management

HDD health monitoring Smart &POS Function

Supports multiple VCA (Video Content Analytics) events

Smart search for the selected area in the video; and smart playback to improve the playback efficiency

POS information overlay on live view and playback

POS triggered recording and alarm Network & Ethernet Access

Hik-Connect for easy network management

Features and Functions Professional and Reliable.

Central Video Management Software and Hardware

Features:

VSM Server Provides normal and hot spare mode

Provides service for clients & servers Provides centralized management for users, roles, permissions, surveillance devices, and servers Provides log management Scalable for medium and large-sized projects.

Service manager for system health monitoring Streaming gateway: a VSM component that forwards and distributes audio and video data as well as forwards signaling.

Streaming Service Forwards and distributes audio and video data Web Client Access the VSM service via IP address or domain name License management

Online or update

Online or Startup wizard guides you through basic including

• Adding encoding devices

• Event parameters

• Managing system users supports standard ONVIF™ protocol Encoding device management

•Devices can be added: network cameras, network speed domes, video encoders, NVRs, etc.

• Create password for encoding device(s)

• The password strength of the added encoding device can be checked by the system for security purpose

• Six adding modes for encoding devices available:

• By the online devices in the same subnet with the VSM server or current PC

• By specifying the device IP address or domain name

• By adding the devices added to Hik-Connect account

• By specifying an IP segment

• By specifying a port segment

• By in a batch restore or reset passwords for detected online devices Recording Server manageable

• Add Hybrid Storage Area Network (Hybrid SAN) or Cloud Storage Server as a Recording Server

• Add Hybrid SAN or Cloud Storage Server by IP address

• Provides WAN access

• Provides searching the video stored in Cloud Storage Server via the HikCentral Mobile Client.

• Remotely the added Hybrid SAN or Cloud Storage Server via a web browser

• One-touch for the Hybrid SAN storage • Hybrid SAN N+1 hot spare • Provide ANR

Hardware Specification
Processor Intel® Xeon® E-2124
Memory
16G DDR4 DIMM slots, Supports UDIMM, up to 2666 MT/s, 64GB Max.
Supports registered ECC
Storage Controllers
Internal Controllers: SAS_H330
Software RAID: PERC S140
External HBAs: 12Gbps SAS HBA (non-RAID)
Boot Optimized Storage Subsystem: 2x M.2 240GB (RAID 1 or No RAID), 1x M.2 240GB (No RAID Only)
Drive Bays 1T 7.2K SATA×2
Power Supplies Single 250W (Bronze) power supply
Dimensions
Form Factor: Rack (1U)
Chassis Width: 434.00mm (17.08 in)
Chassis Depth: 595.63mm (23.45 in) (3.5"HHD)
Note: These dimensions do not include: bezel, redundant PSU
Dimensions with Package (W × D × H) 750 mm × 614 mm × 259 mm (29.53" × 24.17" × 10.2")Net Weight 12.2 kg Weight with Package 18.5 kg Embedded NIC 2 x 1GbE LOM Network Interface Controller (NIC) ports Device Access Front Ports: 1x USB 2.0, 1 x IDRAC micro USB 2.0 management port Rear Ports: 2 x USB 3.0, VGA, serial connector Embedded Management iDRAC9 with Lifecycle Controller iDRAC Direct DRAC RESTful API with Redfish Integrations and Connections Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight (available from BMC) Red Hat Ansible Connections: Nagios Core & Nagios XI Micro Focus Operations Manager i (OMi) IBM Tivoli Netcool/OMNIbus Operating Systems Microsoft Windows Server® with Hyper-V

Software Specification
The following table shows the maximum performance of the HikCentral Professional server. For other detailed data and performance, refer to *Software Requirements & Hardware Performance*.
Features Maximum Performance
Devices and Resources
Cameras
Centralized Deployment: 3,000①
Distributed Deployment: 10,000②
Central System (RSM): 100,000③
Managed Device IP Addresses
Including Encoding Devices, Access Control Devices, Elevator
Control Devices, Security Control Devices, and Remote Sites
Centralized Deployment: 1,024①
Distributed Deployment: 2,048②
Video Intercom Devices 1,024

Alarm Inputs (Including Zones of Security Control Devices) 3,000
Alarm Outputs 3,000
Dock Stations 1,500
Security Radars and Radar PTZ Cameras 30
Alarm Inputs of Security Control Devices 2,048
DS-5600 Series Face Recognition Terminals When Applied with Hikvision Turnstiles 32
Recording Servers 64
Streaming Servers 64
Security Audit Server 8
DeepinMind Server 64
ANPR Cameras 3,000
People Counting Cameras Recommended: 300
Heat Map Cameras Recommended: 70
Thermal Cameras Recommended: 20④
Queue Management Cameras Recommended: 300
Areas 3,000
Cameras per Area 256
Alarm Inputs per Area 256
Alarm Outputs per Area 256
Resource Groups 1,000
Resources in One Resource Group 64
Recording
Recording Schedule 10,000
Recording Schedule Template 200
Event & Alarm
Event and Alarm Rules
Centralized Deployment: 3,000
Distributed Deployment: 10,000
Central System (RSM): 10,000
Storage of Events or Alarms without Pictures
Centralized Deployment: 100/s
Distributed Deployment: 1000/s
Events or Alarms Sent to Clients
*The clients include Control Clients and Mobile Clients.
120/s
100 Clients/s
Notification Schedule Templates 200
Picture
Picture Storage
*Including event/alarm pictures, face pictures, and vehicle pictures.
20/s (Stored in SYS Server)
120/s (Stored in Recording Server)
Reports

Regular Report Rules 100
Event or Alarm Rules in One Event/Alarm Report Rule 32
Records in One Sent Report 10,000 or 10 MB
Resources Selected in One Report
With this limitation, you can generate a neat and clear report via the Control Client and it costs less time. 20
Data Storage Data Retention Period Stored for 3 Years
People Counting 5 million Heat Map 0.25 million ANPR 60 million Events 60 million Alarms 60 million Access Records 1.4 billion Attendance Records 55 million Visitor Records 10 million Operation Logs 5 million Service Information Logs 5 million Service Error Logs 5 million Recording Tags 60 million Users and Roles Concurrent Accesses via Web Clients, Control Clients, and OpenAPI Clients 100 Concurrent Accesses via Mobile Clients and OpenAPI Clients 100 Users 3,000 Roles 3,000 Vehicle (ANPR) Vehicle Lists 100 Vehicles per Vehicle List 5,000 Under Vehicle Surveillance Systems 4 Vehicle Undercarriage Pictures 3,000 Entrance & Exit Lanes 8 Cards Linked with Vehicles 250,000 Vehicle Passing Frequency in Each Lane 1 Vehicle/s Face Comparison Persons with Profiles for Face Comparison 1,000,000 Face Comparison Groups 64 Persons in One Face Comparison Group 1,000,000 Access Control Persons with Credentials for Access Control 50,000 Visitors 10,000 Total Credentials (Card + Fingerprint) 250,000 Cards 250,000 Fingerprints 200,000 Profiles 50,000 Access Points (Doors + Floors) 1,024 Access Groups 512 Persons in One Access Group 50,000 Access Levels 512Access Schedules 32
Time and Attendance
Persons for Time and Attendance 10,000
Attendance Groups 256

Persons in One Attendance Group 10,000
Shift Schedules 128
Major Leave Types 64
Minor Leave Types of One Major Type 128
Smart Wall
Decoding Devices 32
Smart Walls 32
Views 1,000
View Groups 100
Views in One View Group 10
Cameras in One View 150
Views Auto-Switched Simultaneously 32
Streaming Server's Maximum Performance
Video Input Bandwidth per Streaming Server 300 × 2 Mbps
Video Output Bandwidth per Streaming Server 300 × 2 Mbps

Video 4K Decoder
Provides HDMI (adaptable to DVI-D) and BNC output interfaces.
Up to 4K (3840 × 2160@30Hz) via HDMI output interfaces (only for odd interface).

Up to 8-ch decoding at 24 MP resolution.

H.265+/H.265, H.264+/H.264, Hik264, MPEG4 and MJPEG video compression.

PS, RTP, TS, ES, HIK encapsulation formats.

Three encoding levels: baseline, main, and high-profile.

G.722, G711A, G726, G711U, MPEG2-L2, and AAC audio compression.

Two decoding modes: active decoding and passive decoding.

Supports two-way audio via client software.

Remote video files' decoding output.

Provides VGA and DVI input interfaces.

Supports window opening, window roaming and window split.

Supports multi-screen control with PC installed with RSC server.

Gets stream and decodes via URL and RTSP from encoding devices.

Displays the decoded video stream on the video wall by directly linking cameras or by stream media forwarding.

Configurable LED width and height parameters when the LED is connected.

Regular and irregular virtual screen configurable to display multiple signal sources and get rid of the restriction of physical screen.

Accessible by thermal network camera and you can view the temperature measurement, dynamic fire source detection, ship detection and VCA information in live view and playback. You can enable or disable the smart information for the thermal network camera. Accessible by 2.4 MP DeepinView camera.

Port aggregation technology (Ethernet Channel).

Two-way audio.

You can configure what the video wall shows when decoding ends and streaming fails via the Web browser and client software.

55" Surveillance Grade LED Monitor

Display

Screen Size54.64 inch

Active Display Area1208.5 (H) x 679.4 (V) mm (47.58 x 26.75 inch)

Backlight LED

Pixel Pitch0.210 (H) x 0.630 (V) mm

Border Width29.3 mm (left side, right side, top), 32.8 mm (bottom)

Resolution1920 x 1080

Brightness450 cd/m²

Viewing Angle178 (H) / 178 (V)

Color Depth8 bit, , 16.7 M

Contrast Ratio3500: 1

Response Time 6.5 ms

Refresh Rate60 Hz

Color Gamut68 % NTSC

Reliability7 x 24 H

Interface
Video & Audio Input
VGA x 1, DVI x 1, HDMI x 1, BNC IN x 1 AUDIO IN x 1 Video & Audio Outpu BNC OUT x 1 Built-in audio x 2 Data Transmission Interface USB x 1 Control InterfaceRS-232 IN x 1, RS-232 OUT x 1
General
VESA400 (H) x 400 (V) mm (15.04 x 15.04 inch)
Working Temperature0 °C to 50 °C (32 °F to 122 °F)
Working Humidity10 % to 90 % RH
Storage Temperature-20 °C to 60 °C (-4 °F to 140 °F)
Power Supply100 to 240 VAC, 50/60 ± 3 Hz
Power Consumption118 W
Casing Material Metal
Standby Consumption1 W
Storage Humidity10 % to 90 % RH
Product Dimensions1267.1 (W) x 741.5 (H) x 78.24 (D) mm (49.89 x 29.19 x 3.08 inch)
Package Dimension1395 (W) x 890 (H) x 295 (D) mm (54.92 x 35.04 x 11.61 inch)
Net Weight22 Kg (48.5 lb.)
Gross Weight25 Kg (55.12 lb.)
Accessory Remote control x 1, Infrared receiver x 1, Battery x 2, User manual x 1, Power cable x 1, CD-ROM x 1

43" LED Monitor
- 1080p Resolution
- LED Backlit Technology
- Wide Angle View: 178° (H)/178° (V)
- 3D Comb Filter
- 3D De-Interlace
- 3D Noise Reduction
- Multiple Inputs: HDMI, VGA, BNC, Audio
- Built-In Speaker
- Highly Reliable 24h/Day Functioning

Work Station for Command Center
Intel Core i7-10750H
10th Generation Intel Core "Comet Lake"
Six-core / 2 computing threads per core
2.6 - 5.0 GHz
12MB
DDR4 (2933 MHz max. speed)
Intel UHD 630
14-nanometer

Gaming & high-performance laptops
Intel Hyper Threading (enables two computing threads per physical processor core)
Intel Quick Sync Video (speeds up conversion of video files)
Intel Turbo Boost (dynamically boosts performance of cores, depending on power and thermal headroom)
Virtualization (allows the processor to run multiple virtual platforms)
2020
Intel Core i7-10750H
10th Generation Intel Core "Comet Lake"
Six-core / 2 computing threads per core
2.6 - 5.0 GHz
12MB
DDR4 (2933 MHz max. speed)
Intel UHD 630

10 KVA UPS
Technical Specifications:
Batteries & Runtime
Battery type Lead-acid battery typical recharge time 1.5hour(s)
Nominal Battery Voltage +/- 192 V (split battery referenced to neutral)
Replacement Battery SRT192RMBPUS
Expected Battery Life (years) 3 - 5 RBC Quantity 2
Battery Charge Power (Watts) 1.191kWatts
Extendable Run Time 1 Extended Run Options
08-240V-to-120V-10kVA-Step-DownTransformer (Available in Technical Tab on site)
Runtime View Runtime Graph (Available in Technical Tab on site) View Runtime Chart (Available in Technical Tab on site)
Efficiency View Efficiency Graph (Available in Technical Tab on site) Communications & Management Interface Port(s) RJ-45 10/100 Base-T, RJ-45 Serial, Smart-Slot, USB Control panel Multifunction LCD status and control console
Audible Alarm Audible and visible alarms prioritized by severity Emergency Power Off (EPO)
Available Smart Slot™ Interface Quantity 1 Surge Protection and Filtering Surge energy rating 480Joules Physical
Maximum Height 17.24inches (438MM, 43.8CM)
Maximum Width 17.01inches (432MM, 43.2CM)
Maximum Depth 29.49inches (749MM, 74.9CM)
Rack height 10U Net Weight 465.99lbs. (211.37KG) S
Hipping weight 561.01lbs. (254.47KG)

42U Server Cabinet
a.42U Universal Rack Features

Contemporary, sleek appearance, strong frame structure
Multiple vendor equipment compatibilities
Full line of accessories & a family of sizes and styles
b.42U Universal Rack Dimensions
Width: EIA Standard 19″ Rack Rails
External Width: 23.6″ – 600mm
Height: 78.74″ – 2,000mm – Rack Units: 42U
Depths: 39.37″ & 41.34″
Racks in other dimensions are available
c.42U Universal Rack Accessories
Sidewalls, Split rear Doors
Baying Kits, tool less Shelves, Casters, Bolt Down Kits, Cable Management
Power Strips – Vertical or Rack mount, Enclosure Monitoring System
Tool less Blanking Panels, Fans
12U Data Cabinet
Height: 12U (27.4" / 696mm)
Weight Capacity: 400 lbs.
Depth: 32.5" (826mm)
Usable Depth: 29" (737mm)
Width: 24.4" (620mm)
Rails: 19" EIA.

24 Ports Gigabit Unmanaged Switch
PoE Power SupplyPoE Standard IEEE 802.3af, IEEE 802.3at
PoE Power Pin Ethernet cable 1/2/3/6 provide power supply.
PoE Power Pin Ethernet cable 1/2/3/6 provide power supply.
PoE Port Ports 1 to 24Max. Port Power30 W
PoE Power Pudget225 W
PoE Power SupplyPoE Standard IEEE 802.3af, IEEE 802.3at
PoE Power Pin Ethernet cable 1/2/3/6 provide power supply.
PoE Power Pin Ethernet cable 1/2/3/6 provide power supply.
PoE Port Ports 1 to 24Max. Port Power30 W
PoE Power Pudget225 W
Max. Power Consumption250 W
Network Parameters
Port Number24 × Gigabit

Port TypeRJ45 port, full duplex, MDI/MDI-X adaptive
Standard IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3ab, IEEE 802.3z
Forwarding Mode Store-and-forward switching
MAC Address Table 8 K
Switching Capacity 52 Gbps
Packet Forwarding Rate38.688 Mbps

Internal Cache4.1 Mbits
General
Shell Metal material with a fan equipped.
Gross Weight4.120 kg (9.08 lb)
Net Weight2.920 kg (6.44 lb)
Dimension (L × H × D)440 mm × 44 mm × 220.8 mm (17.3" × 1.7" × 8.7")
Operating Temperature-10 °C to 55 °C (14 °F to 131 °F)
Storage Temperature-40 °C to 85 °C (-40 °F to 185 °F)
Operating Humidity5% to 95% (no condensation)
Storage Humidity5% to 95% (no condensation)
Power Supply100 to 240 VAC, 50/60 Hz, 4 A (Max)
Power Consumption In Idle25 W

24 Ports Managed Gigabit Switch with SFP
24) Gigabit RJ45 Ports
(2) SFP Ports • (1) Serial Console Port
Non-Blocking Throughput: 26 Gbps
Switching Capacity: 52 Gbps
Forwarding Rate: 38.69 Mpps
• Maximum Power Consumption: 25W
• Rack- or Wall-Mountable
• DC Input Option (Redundant or Stand-Alone

Network PTZ Controller
Interface
Network Interface
10M/100M/1000M adaptive ethernet port;
WiFi: Supported
USB Interface2 × USB 2.0
Audio Interface
Audio Input: 1-ch, 3.5 mm connector (2.0 Vp-p, >1 KΩ)
Audio Output: 1-ch, 3.5 mm connector (2.0 Vp-p, 600 Ω)
Video Interface HDMI, DVI
Serial Interface Network, RS-232, RS-422, RS-485
General
Dimension (W × H × D)404 mm × 163 mm × 180 mm (15.91" × 6.42" × 7.09")
1.7 kg (3.75 lb) Power Supply12 VDC/PoE Screen10.1" TFT LCD touchscreen, Resolution: 1024 × 600

Joystick4-axis joystick
Power
Power Consumption≤15 W
Environment

Working Temperature-10 to +55° C (14 to 131° F)
Working Humidity10% to 90%

6TB HDD Surveillance Grade
Capacity
6   TB
Interface
SATA
Form Factor
3.5 Inch
Disk Speed (RPM)
5700rpm
Compatibility
WD Purple™ surveillance storage is built to handle up to 64 cameras per drive and is designed for 24/7, always on, high-definition surveillance security systems with more than eight bays[2].
Dimensions (L x W x H) 5.79" x 4" x 1.03"

Outdoor Wireless Bridge
Built-in 15dBi 2×2 dual-polarized directional MIMO antenna
5GHZ theoretical throughput reaches 300Mbps
Point-to-point, point to multi-point
Up to 15km wireless transmission distance
Powered by included adapter via passive PoE
Web-based configuration, easy to use

4 Port Fast Ethernet Unmanaged POE Switch
PoE Power Supply
PoE Standard
Port 1: IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt
Ports 2 to 4: IEEE 802.3af, IEEE 802.3at
PoE Power Pin Support 8-core power supply, Ethernet cable 1/2/3/6 and 4/5/7/8 provide power supply simultaneously.
PoE Port Ports 1 to 4
Max. Port Power
Port 1: 60 W
Ports 2 to 4: 30 W
PoE Power Pudget60 W
Max. Power Consumption65 W
Network Parameters
Port Number1 × 10/100 Mbps Hi-PoE port, 3 × 10/100 Mbps PoE ports, and 2 × 10/100 Mbps RJ45 ports
Port TypeRJ45 port, full duplex, MDI/MDI-X adaptive

Standard IEEE 802.3, IEEE 802.3u, IEEE 802.3x
Forwarding Mode Store-and-forward switching
Working Mode Standard mode (default); Extend mode
High Priority Ports Ports 1 to 2
Ports For Long-Distance Transmission Ports 1 to 4
MAC Address Table2 K
Switching Capacity1.2 Gbps
Packet Forwarding Rate0.893 Mpps
Internal Cache768 Kbits
General
Shell Metal material, fan-free design
Gross Weight0.77 kg (1.70 lb)
Net Weight0.24 kg (0.53 lb)
Dimension (L × H × D)145 mm × 25.6 mm × 68.45 mm (5.7" × 1.0" × 2.7")
Operating Temperature-10 °C to 55 °C (14 °F to 131 °F)
Storage Temperature-40 °C to 85 °C (-40 °F to 185 °F)
Operating Humidity5% to 95% (no condensation)
Storage Humidity5% to 95% (no condensation)
Power Supply48 VDC, 1.35 A
Power Consumption In Idle5 W
Approval
EMCFCC (47 CFR Part 15, Subpart B); CE-EMC (EN 55032: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 55024: 2010 +A1: 2015); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 6, 2016)
Safety UL (UL 60950-1); CB (IEC 60950-1:2005 + Am 1:2009 + Am 2:2013); CE-LVD (EN 60950-1:2005 + Am 1:2009 + Am 2:2013)
Chemistry CE-RoHS (2011/65/EU); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)

UPS 1600VA
Sinewave | 8 Outlets | AVR | LCD interface | High Performance Computer and Electronics UPS for Premium Power Protection | Max. Capacity Used 100% | Output power capacity 960 Watts / 1.6kVA | Output Connections = IEC 60320 C13 (Surge Protection) / IEC 60320 C13 (Battery Backup) | Nominal Output Voltage 230V | Nominal Input Voltage 230V

PC Set for Video Management System
Intel Core i7 10700f
Gigabyte h410 Motherboard
8 Gb DDR4 memory
1 Tera Seagate HD 2Gb
GT710 Video Card
ATX Casing
450watts True Rated PSU

USB Keyboard and Mouse
22" Acer Monitor

DUAL BAND PROFESSIONAL HANDHELD RADIO

Features:
- Monitor / Squelch Off
- Call Tone
- Vox
- Channel Scan
- Priority Scan
- Side Key
- Dual Standby
- PTT-ID

IP/PoC RADIO

Network Type	GSM WCDMA
WIFI (Optional)	Yes
Output Power	> 20 dBm
Receive Sensibility	-110 dBm
GPS (Optional)	Yes (1575 MHz)
LBS (Optional)	Yes (Base Station)
Battery Capacity	4000 mAH (Li-ion)
Working Time	21 HourS
Measurements (LxWxH)	100x57x35mm

VII. Definition of Terms

- **Bandwidth –** The amount of information that can be carried or passed through an information system or a communication channel.

- **Bullet Network Camera –** A type of video camera often used in surveillance systems, named because of its shape and size.

- **Closed Circuit Television (CCTV)-** otherwise known as video surveillance, is a system that uses video cameras in certain areas at a specific duration and transmits those video feeds for a specific location.

- **High Definition (HD) Video –** a higher resolution video than standard definition.

- **Full High Definition (FHD) –** is able to handle high definition signal of 1080 lines of information across the screen.

- **Internet Protocol –** are rules governing the operation of the internet and similar data network.

- **Licensed Band –** range of frequencies regulated by the National Telecommunications Commission (NTC).

- **Network Video Recorder –** is a system of recording audio/video captured from CCTV cameras and other similar devices, usually through a network.

- **Power over Ethernet (PoE) –** describes any of several standard or adhoc systems, which pass electric power along with data on twisted pair Ethernet cabling. This allows a single cable to provide both data connection and electric power to devices such as wireless access points, IP cameras, and VoIP phones.

- **PTZ Network Camera –** A pan-tilt-zoom (PTZ) camera is a   camera that is capable of remote directional and zoom control.

- **Ultra High Definition (UHD) –** is a video format that uses the 16:9 aspect ratio or wider (4K and 8K digital video formats).

- **Video Wall –** an array of video display that is composed of Liquid Crystal Display (LCD) and/or Light Emitting Diode (LED) display.

- **Video Switcher/Mixer/Matrix Controller –** electronic equipment that is used to switch different video sources and output it to a Video Wall Display.

- **Video Feeds –** a signal carrying moving images from the cameras.

- **Wireless Network –** a digital or analog network that uses radio signals to transmit information.

VIII.   Terms and Condition

Site survey, System design, detailed engineering, manufacture/procurement and supply of all related goods and providing all related services including delivery, furnishing of materials, parts, labor tool, equipment system, test instruments, apparatus, all software permits/licenses, and provision of other engineering services, assembly, installation, calibration, optimization, integration of equipment and software, testing, commissioning, test run, documentation, warranty, training, complete in all respect for implementation and completion of the project.

<u>"Procurement of Equipment for the Supply, Delivery, Design, Installation, Testing, Training, Commissioning including the Integration of CCTV Systems for Nueva Ecija University of Science and Technology (NEUST)"</u>

The supplier shall undertake the processing and documentations of all permits/licenses from the National Telecommunications Commission (NTC) and all entities

1. The supplier shall be responsible in the Ordering, Shipping, Insurance, Customs' Clearance, release, transportation and delivery to the site of all equipment/system necessary for the project.

2. The supplier is responsible for site survey, site preparation, cable routes, coverage, engineering, electrical works, rough-in works, and all other installation necessary for the completion of the project in coordination with NEUST.

3. The supplier shall undertake the supply and delivery, design, installation, programming, testing and commissioning of all system components.

4. The Supplier shall integrate the existing digital surveillance camera installed in 3 campuses.

5. Preparation and submission of all necessary engineering, detailed electrical plans, technical specifications, detailed cost estimate and construction schedule.

6. Submission of all construction/ installation records;

7. Submission of as-built plans/ drawings, certificate of warranties, manuals and other documents necessary in the maintenance program of the project upon completion of the project.

IX. General Notes

▪ The scope of work shall not in any way limit the true intent of the project as defined in this Terms of Reference. It shall be the responsibility of the winning bidder to incorporate any incidental expenses deem necessary to satisfy the true intent of the project to the best engineering standard and practices.

▪ The winning bidder must have full knowledge of the project, work and site condition, and have reviewed the true intent of the project and bid documents, and thus the availability of the labor, works, specialties of the system, systems, parts and other materials need to complete and commission the CCTV Equipment for NEUST.

X. Testing and Commissioning

1. The test and evaluation shall be in accordance with NEUST policy and other applicable test parameters.

2. Commissioning and functional testing of the system shall be undertaken after all the equipment has been installed, tested and evaluated including calibration, technical adjustment and alignment as may be deemed necessary.

3. Network installation, Set up and Testing to be conducted by the bidder:

   ▪ Comply with the design and plan for the structured cabling and wireless connectivity to include pertinent documentation of cabling system and mounting structures;

   ▪ Supply, install, set up, label and test all cables from the central patch panel and switches to the remote sites patch panel and switches to include all nodes and wireless devices;

   ▪ Supply, install and set up of roughing ins materials such as but not limited to the aluminum split tube, conduits, moldings and other materials necessary for a more reliable network cabling;

   ▪ Do minor carpentry work and restoration of affected areas for the proper installation of roughing ins materials for the network cabling.

   ▪ Test connectivity, continuity, bandwidth, and other necessary requirements to fully satisfy efficient network system;

- Structured cabling that requires installations of wireless devices and/or cables inside the NEUST premises;

- Structured cabling shall comply with Local Government Codes as needed, and industry standards;

- The winning bidder shall secure all the necessary permits if required;

- Submit after network cabling records/reports and documentation;

The winning bidder shall issue certification that the structured cabling and wireless connectivity has 100% pass the test, compliances and standards, and working successfully. If any component does not satisfy the required tests, compliances and standards, the supplier shall make appropriate actions to solve the problem.

XI. Training

The supplier shall provide training on operational procedure, basic troubleshooting and configuration for personnel assigned at sub-command and command center of NEUST.

XII.   Delivery and Completion Period

Project delivery and completion including testing and commissioning shall be within 120 calendar days after issuance of Notice to Proceed (NTP).

XIII.   Warranty and Guarantee

- The winning bidder guarantees that the supplies and services rendered shall turn out properly in conformity with good engineering practices and in accordance with the manufacturer's manual procedures. The winning bidder guarantees that the Command Center system and its sub-systems shall work in conformity adaptability to the present technological advancement and must make available its technical expertise and support within the warranty period at no cost to NEUST.

- The winning bidder shall repair, correct, or replace any defect of any nature that may occur for a period of 12 months from the date of acceptance.

- During the warranty period, the winning bidder shall provide the following:

a) Telephone Technical Support Service – NEUST personnel to refer/consult through telephone call concerning malfunction encountered on the system and provide immediate solution to the problem.

b) On-Site Technical Support – The winning bidder upon receipt of service/trouble call shall provide on-site technical support within 48 hours upon notification. While undergoing repair, a service unit must be provided to ensure uninterrupted system operation.

c) Personnel capable of troubleshooting and maintaining the system including the required tools, maintenance spares, hardware, software, materials, etc. for the rectification of any problem.

- The warranty period shall start upon the final inspection and acceptance of the whole project.
- Warranty Certificate from the manufacturer ensuring that the equipment to be supplied are all original and brand new.
- The contractor shall configure the system in any case of system error and repair or replace any defect of any nature that may occur within the warranty period from the date of certificate of acceptance.