

Power requirements	AC 100/200, 50/60Hz
Working temperature	-28°C~60°C
Working environment	Indoor/outdoor
Lane width(mm)	550 and 900 (customized)
Dimensions(mm)	L=1200, W=300, H=980
LED indicator	Y
Cabinet material	Stainless Steel
Lid material	Stainless Steel
Barrier material	Acrylic
Barrier movement	Retracting
Security level	Medium

PROJECT MANAGEMENT SERVICES

PROJECT MANAGEMENT TEAM

The System Provider shall organize a Project Management Team to deliver the requirements and timelines set on the project. A Project Manager shall be assigned to oversee the implementation of the project. The Project Management Team shall meet the following requirements:

- one (1) Project Manager with the following qualifications:
 - a. With a valid Project Management Training certification from accredited Project Management Institute such as Apex Global, Phoenix One and UDEMY).
 - b. completed four (4) Information system projects over the last five (5) years reckoned from the date of the opening of bids;
- One (1) Electronic Communication Engineer (ECE) to be assigned at the Philippine Ports Authority (PPA) Headquarter in Manila for the entire duration of contract;
 - a. One (1) Full-Time Technical Personnel assigned at the PPA Headquarter in Manila for the support and maintenance of the entire system.

The Full-Time Technical Personnel shall report from Monday to Friday, from 8AM to 5PM. In case the assigned personnel will be on leave, a replacement/backup personnel shall automatically be assigned to takeover the duties and responsibilities.

- The Project Management Team shall submit a weekly project progress Status report.

	<ul style="list-style-type: none"> • Project Reporting – submit a weekly project progress report or as requested by PPA. 	
	<p>PROJECT MANAGEMENT PLAN (PMP)</p> <p>a. The System Provider shall provide a Project Management Plan (PMP) within fifteen (15) calendar days from the receipt of Notice to Proceed and signed contract.</p> <p>Components of the PMP must include the following:</p> <ul style="list-style-type: none"> • Project Team Composition and Responsibility Matrix • Gantt Chart and Schedules • Work Breakdown Schedule <p>b. The System Provider shall provide the implementation timeline and the project completion date in the PMP.</p> <p>c. The System Provider shall provide the necessary equipment, cables, and other components to successfully install, maintain, monitor, and manage the entire network.</p>	
	<p>CONTRACTOR'S QUALIFICATIONS</p> <p>a. The System Provider must be duly registered and has been in active operation for the last ten (10) years.</p> <p>b. The System Provider must have undertaken a project with nationwide deployment of hardware and software in more than 100 locations all over the country.</p> <p>c. The System Provider must be an ISO 9001:2015 certified company with certification scope specifically: To provide high quality solutions for System Integration which involves Integration, Implementation and Providing After Sales Service of IT related products and software solutions.</p> <p>d. Must have completed a single largest contract similar to the contract to be bid whose value must be at least equivalent to fifty percent (50%) of the ABC. For this purpose, a similar contract means contract for the Supply and delivery of any Information Communication Technology equipment and systems such as mini pc, thin client, zero client, facial recognition and smart security systems.</p>	
	<p>WARRANTY</p> <p>a. The Facial Recognition System (FRS) with Mobile Application System Provider shall warrant the customized</p>	

FRS free from any hardware defect, configuration/software errors from the date of turn-over to PPA. Within two (2) years from the date of acceptance by the PPA, the contractor shall appropriately inform of possible bugs, issues and technical concerns affecting the FRS, promptly act to fix the problem at no expense to PPA.

- b. The products and the system provided shall have a minimum of two (2) years warranty parts and services for all equipment and software delivered.
- c. If connections are to be relocated, the reconnection must be performed by the Service Provider without any extra cost to PPA.
- d. In the event of renovation, repair, rehabilitation and stop of operation, PPA can nominate a replacement with the consideration of service provider's infrastructure coverage.
- e. The System Provider must ensure the project owner from and against all liabilities from damages arising from injuries or disabilities to persons, or damages to property occasioned by any or omission of the system provider, or any of his subcontractors, including any and all legal expenses or otherwise.
- f. The System Provider must address every incident encountered promptly in accordance with the Service Level Agreement as follows:
 - Must Include technical support within Business Hours for problems related to contracted services and helpdesk. Onsite support must be provided immediately when the issue was first reported.
 - If incident happen during off-hours duty, remote support must be provided within one (1) hour from when the issue was first reported.
 - If the issue has not been remotely resolved, on-site support must be provided within the first two (2) hour period following discovery/report if within Metro Manila and within seventy-two (72) hours for those outside Metro Manila.
 - Must provide the needed repair services and parts services within the first four (4) hours when the issue has been raised.
 - Service Level Agreement (SLA) for Facial Recognition must not be less than 99.5% uptime
- g. The System Provider must be an authorized and accredited service provider of the manufacturer. A proof of certification is required. (Facial Recognition Camera, POE Switch, RFID Reader, Server, Turnstile, Mini PC, and Door Access Device)

	<p>h. Certificate on the Availability of Spare Parts shall be provided by the bidder to ensure immediate replacement of defective parts within the warranty period. The Supplier shall warrant the availability of spare parts for a period of at least five (5) years from the purchase of the subject units.</p> <p>i. Spare parts or components shall be supplied as promptly as possible, but in any case, within seven (7) days from placing the order.</p> <p>j. Burn-in tests will be conducted on the servers. It will be a series of hardware intensive tests for a period of 12 to 24 hours or more, any component that is defective would show up during the burn-in period.</p>	
	<p>OWNERSHIP AND CONFIDENTIALITY OF DATA</p> <p>a. All data/information related to the development of the information system that may be shared by the Philippine Ports Authority in the course of evaluating the various modules, functions, and features of the customized solution, shall remain confidential and shall not be copied, divulged, transmitted or shared in any way to third parties.</p> <p>b. All required software/technology licenses purchased for the system solution shall be named under the Philippine Ports Authority.</p> <p>c. All pertinent records of PPA personnel, employee's dependents, work assignments, performance appraisals, and other HR-related information entered into and recorded by the system shall be owned by the Philippine Ports Authority.</p> <p>d. The System Provider shall ensure that such information shall be treated with confidentiality through a non-disclosure agreement.</p> <p>e. The System Provider shall abide by the provisions stipulated in the Data Privacy Act.</p>	
	<p>All other provisions stated in the Terms of Reference not included herein.</p>	

TERMS OF REFERENCE

PROCUREMENT FOR THE DEVELOPMENT OF FACIAL RECOGNITION FOR CONTACTLESS ATTENDANCE TRACKING WITH MOBILE AND EVACUATION APPLICATION AND VISITOR MANAGEMENT SYSTEM

1. PROJECT OVERVIEW

The Philippine Ports Authority recognizes the convenience of contactless tracking of employees' time and attendance through the Daily Time Record (DTR) which also supports the efforts of the Philippine government to fight COVID-19 Pandemic and to mitigate the onward transmission of the COVID-19 virus.

The Facial Recognition Manager can be made to recognize employees and visitors, thus, making sure that everyone transacting business in the Authority is being monitored for reference and security purposes.

The system, in times of emergency, can also be used to alert or warn the employees and assist the Authority in the evacuation of its premises. Further, an emergency message can be simultaneously sent to all employees and visitors through the mobile app.

2. OBJECTIVES

2.1 The System Provider shall supply, deliver, install, integrate, configure, test, and implement the development of facial recognition manager for contactless attendance tracking with mobile application that supports employee's emergency and evacuation app and visitors management system project requirements.

2.2 To utilize the facial recognition and RFID technology to further improve the monitoring of log-in and log-out and reinforce the security of the following:

- a. Regular Personnel
- b. Outsourced Personnel
- c. Visitors and Guests
- d. Customers

2.3 To generate Daily Time Record that is linked to the current Human Resource Information System (On Leave, Absent, Tardy, Under-time, LWOP, Holidays, etc.)

2.4 To computerize the evacuation of personnel and visitors within the PPA premises in case of disaster or emergencies.

3. APPROVED BUDGET FOR THE CONTRACT

PPA intends to apply the sum of One Hundred Eighteen Million Pesos (PHP 118,000,000.00) inclusive of 12% VAT being the Approved Budget for the Contract ABC) for the Development of Facial Recognition For Contactless Attendance Tracking With Mobile And Evacuation Application And Visitor Management System.

4. DELIVERY

The winning bidder must supply, deliver, install, test and commission all the equipment in the period of one hundred and twenty (120) calendar days from receipt of the Notice to Proceed (NTP) at the Philippine Ports Authority, Bonifacio Drive, South Harbor, Manila. Delivery of equipment intended for the PMOs must be the responsibility of the winning bidder. This includes delivery to site, site inspection and preparation, setup, installation, and configuration of all hardware (host server or virtual machines) and software components, as well as project management.

NAME OF PMO/TMO

1 PMO EASTERN LEYTE/SAMAR

- 1.1 TMO-Liloan
- 1.2 TMO-Calbayog (PTB)
- 1.3 TMO-Catbalogan
- 1.4 TMO-Borongan
- 1.5 TMO-Guiuan
- 1.6 TMO-San Isidro
- 1.7 TMO-San Isidro - Port of San Jose

2 PMO BICOL

- 2.1 TMO Bulan
- 2.2 TMO Camarines
- 2.3 TMO Matnog/PTB Matnog
- 2.4 TMO Pioduran/PTB Pioduran
- 2.5 TMO Tabaco/PTB Tabaco
- 2.6 TMO Catanduanes
- 2.7 PTB Catanduanes

3 PMO BOHOL

- 3.1 TMO-Jagna
- 3.2 TMO-Ubay
- 3.3 TMO-Talibon
- 3.4 TMO-Getafe
- 3.5 TMO-Tubigon
- 3.6 TMO-Loon

- 4 PMO MASBATE
 - 4.1 TMO MASBATE
- 5 PMO PALAWAN
 - 5.1 Palawan
 - 5.2 EL NIDO
 - 5.3 Brooke's Point
 - 5.4 Coron
- 6 PMO WESTERN LEYTE/BILIRAN
 - 6.1 PMO WLB TMO Isabel
 - 6.2 PMO WLB TMO Palompon
 - 6.3 PMO WLB TMO Naval
 - 6.4 TMO Hilongos
 - 6.5 PMO WLB TMO Maasin
 - 6.6 PMO WLB TMO Baybay
- 7 PMO SURIGAO
 - 7.1 TMO Lipata
 - 7.2 TMO Siargao
 - 7.3 TMO Tandag
 - 7.4 TMO Dinagat
- 8 PMO ZAMBOANGA
 - 8.1 TMO-SIBUGAY
 - 8.2 TMO-ISABELA
 - 8.3 TMO-ZAMBOANGA DEL SUR
- 9 PMO MISAMIS OCCIDENTAL/OZAMIZ
 - 9.1 TMO Plaridel
- 10 PMO MISAMIS ORIENTAL/CDO
 - 10.1 TMO Balingoan
 - 10.2 TMO Benoni
- 11 PMO NCR NORTH
 - 11.1 TMO VITAS
 - 11.2 PTB North Harbor
- 12 PMO BATANGAS
 - 12.1 TMO Bauan
 - 12.2 TMO Romblon

- 13 PMO NCR SOUTH
 - 13.1 TMO Pasig
- 14 PMO NEGROS ORIENTAL/SIQUIJOR
 - 14.1 TMO TANDAYAG
 - 14.2 TMO SIQUIJOR, SIQUIJOR
 - 14.3 TMO LARENA, SIQUIJOR
- 15 PMO NEGROS OCCIDENTAL/BACOLOD
 - 15.1 TMO - Malalag
 - 15.2 SAN CARLOS
 - 15.3 HINOBA-AN
 - 15.4 PULUPANDAN
 - 15.5 DANAOS
 - 15.6 BREDCO
- 16 PMO MARQUEZ
 - 16.1 TMO Tablas
 - 16.2 TMO Balanacan
 - 16.3 TMO Sta Cruz
- 17 PMO NORTHERN LUZON
 - 17.1 TMO Pangasinan
 - 17.2 TMO Zambales
 - 17.3 TMO Batanes
 - 17.4 TMO Cagayan/ Isabela/ Ilocos
- 18 PMO DAVAO
 - 18.1 TMO - Babak
 - 18.2 TMO - Mati
- 19 PMO MINDORO
 - 19.1 TMO Roxas
 - 19.2 TMO San Jose
 - 19.3 TMO Roxas, Bulalacao Port
 - 19.4 TMO Lubang
 - 19.5 TMO Abra De Ilog
- 20 PMO PANAY/GUIMARAS
 - 20.1 Port of Lipata - Culasi, Antique
 - 20.2 Port of Dumaguít - Aklan
 - 20.3 Port of Estancia - Iloilo
 - 20.4 Port of Culasi - Roxas City, Capiz
 - 20.5 Port of Jordan - Guimaras

21	PMO AGUSAN		
	21.1	TMO Masao &	
	21.2	TMO Butuan	
22	PMO SOCSARGEN		
	22.1	TMO SULTAN KUDARAT	
	22.2	TMO SARANGANI	
	22.3	TMO COTABATO	
23	PMO LANA DEL NORTE/ILIGAN		
	23.1	TMO Tubod	
24	PMO BATAAN/AURORA		
	24.1	TMO- Capinpin	
	24.2	TMO- Casiguran	
	24.3	TMO- Dingalan	
25	PMO ZAMBOANGA DEL NORTE		
	25.1	TMO-SINDANGAN	
	25.2	TMO-LILOY	
PMO	TMO	TOTAL (PMO/TMO/PTB)	
25	84	109	

5. TRAINING

Training of designated Users and Stakeholders In the concepts / usage / administration / monitoring / maintenance of the Supply, Delivery, Installation and Commissioning of Facial Recognition For Contactless Attendance Tracking With Mobile And Evacuation Application And Visitor Management System, its system/ administration, basic hardware installation and maintenance.

Training Deliverables:

- a) Training syllabi and materials;
- b) Installation, Troubleshooting, Process & Procedure Manual;
- c) 50 hours of training for identified Users and Stakeholders personnel shall be conducted *via* Zoom, or any other similar online training platform, within the period of sixty (60) and ninety (90) days from receipt of the Notice to Proceed (NTP);
- d) Training Certificates;
- e) Course and Instructors evaluations made by the participants; and
- f) Helpdesk Portal where Self-help user guides shall also be made available and accessible.

6. DOCUMENTATION

6.1 SOFTWARE/ HARDWARE REQUIREMENTS:

6.1.1 System Documentation:

- A. Provide documentation for the purpose of operation and maintenance of all hardware and software delivered. This documentation includes all hardware and software manuals, and complete documentation of all installation, customization and performance tuning steps undertaken.
- B. Submit the following documents:
- i. Project Implementation Plan which contains detailed timelines in the form of work breakdown structure (User Acceptance Test Plan, Configuration Management Plan, Service Level Agreement and Non-Disclosure Agreement).
 - ii. Standard Operating Procedures (SOPs) and policies relevant to the project maintenance and operations.
 - iii. Complete documentation of software and licenses, user manuals and other technical materials included in the whole package of the equipment and devices.
 - iv. Drawings/Plans - as-built drawing duly signed and sealed by the Electronics Engineer (ECE).
 - v. Records - must be hard bounded marked as "Operations and Maintenance Manual". It must be created by the installation contractor and turn-over at the completion of works.
 - vi. Monthly Preventive Maintenance and Reports – Preventive maintenance and status check of equipment and submission of monthly operation reports. Included in the reports are Health Status of equipment, Intrusion Prevention Reports, Downtime Logs, etc.
 - vii. Configuration and System Backup wherein there should be a twice a month backup of equipment and system configuration.

Deliverables / Milestone	Schedule	Payment
Project Management Plan / Inception / Requirements Specification	NTP + 15 Days	10%
Delivery of Hardware Components / Equipment / Trainings Materials	NTP + 60 days	60%
User Acceptance Training and Testing	NTP + 90 days	20%
Full deployment to production (Connected to HRIS)	NTP + 100 days	10%

- C. Provide technical training as specified in this TOR.

7. TECHNICAL SPECIFICATIONS

7.1 SOFTWARE REQUIREMENTS

A. System Specification:

1. Facial Recognition Manager

- a. The system shall capture, in real-time, the clock-in and clock-out of employees using the Facial Recognition Camera with a 1:1 two factor authentication using RFID. In addition, a notification must be sent to the employee on the mobile app to confirm the clock-in and clock-out.
- b. The system shall save the captured photo for auditing of time logs.
- c. The system must be capable to send notifications with the mobile app to all employees who did not clock-in and/or clock-out using the facial recognition camera and remind them of the incomplete in/out logs within that day.
- d. The system shall send a notification to employees who have no clock-in by 9 am and no clock-out by 8 pm every workday.

2. Emergency and Evacuation App

- a. The system administrator shall have a facility to trigger an emergency alarm to be sent to the mobile app to notify all employees.
- b. The system administrator shall have the facility to reset the alarm.
- c. The application should have a real-time headcount of employees identified by facial recognition cameras, unaccounted employees, and employees who needs assistance.
- d. Employees can tag themselves within the app if they were able to evacuate, declare safe, or need help/ assistance.
- e. Administrator can tag employees who have evacuated safe or need help/assistance.
- f. Mobile app should have a facility to upload and view evacuation maps of the building.

3. Visitation Web and mobile app

- a. The mobile app should have a facility where authorized employees or persons to be visited can book an appointment, set the number of attendees from visitors, agenda, and send a notification and link *via* email and text message to the visitor.
- b. Send visitors and hosts a friendly email reminder prior their visit
- c. The Web app should have a facility wherein the visitor can pre-register and acknowledge a booked appointment.
- d. The visitor should be able to print the one-time QR Code pass of the approved appointment.
- e. The one-time QR Code pass should be validated at the reception, an equivalent gate-pass should be printed with the name of the visitor, area of the meeting, and person to be visited.
- f. A Visitor's RFID allowing access to the floor where the meeting is to be held must be generated.

- g. The mobile app should have a facility to start and end the meeting.
- h. The app should have a facility to check if the visitor left the premise.

4. System Integration

- a. The System must be capable to link seamlessly with the existing HRIS for the list of employees and other data to minimize the re-encoding of data.
- b. The System must be capable to seamlessly link with the existing Timekeeping and HRIS for attendance processing.
- c. Data transmitted from and to existing HRIS shall be encrypted using Advanced Encryption Standard (AES) and the decryption should be done in the server-side ensuring the security of data during transmission.
- d. Facial Recognition System as an input to HRIS with two factor authentication using RFID – Timekeeping for the processing of Daily Time Report (DTR) and other timekeeping related reports such as Official Business, Travel Order, etc. and must be able to generate a Certificate of Appearance on demand by the employees.

5. Report Generation

- a. Generates List of Employees with Time-In
- b. Generates List of Employees with Time-In/Out
- c. Generates List of Employees who are Absent (No Time-In/Out)
- d. Generates List of Employees who left and did not return during office hours.
- e. Generates List of Unidentified Persons with Matching Time Logs
- f. Summary of Employees' Detected Logs
- g. Automatic determination of employees for the generation of Certificate of Appearance
- h. Daily/Weekly/Monthly Appointment Report
- h. Summary of Visitors
- i. Summary of Cancelled Appointments

6. ID Maker app and ID Database

- a. Provide ID System
- b. Provide facility to Print all RFID

7. Backup and Restore

- a. Provide facilities for the automatic backup system and restore.

B. HARDWARE REQUIREMENTS:

Item 1: Facial Recognition Camera (232 Units)

The Facial Recognition Camera must have the following minimum specification:

Camera	
Image Sensor	1/1.8" 4Megapixel progressive CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	16 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Min. Illumination	0.001 Lux@F1.2 (Color, 30IRE) 0.0002 Lux@F1.2 (B/W, 30IRE) 0 Lux (Illuminator on)
S/N Ratio	> 56 dB
Illumination Distance	40 m (131.23 ft)
Illuminator On/Off Control	Auto
Illuminator Number	3 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–80° Rotation: 0°–355°
Lens	
Lens Type	Motorized vari-focal
Mount Type	Module interface
Focal Length	2.7mm–12 mm
Max. Aperture	F1.2
Field of View	Horizontal: 114°(W)– 47°(T) Vertical: 59°(W)–27°(T) Diagonal: 141° (W–55°(T)
Iris Type	Auto; Precise iris control
Close Focus Distance	W: 1 m (3.28 ft) T: 2.5 m (8.20 ft)
Lens	Detect, Observe, Recognize, Identify
DORI Distance (W)	60.1 m (D), 24 m (O), 12 m I, 6 m (I)
Smart event	
IVS	Abandoned object, moving object
Professional, intelligent	
IVS (Perimeter Protection)	Tripwire, intrusion, fast moving (the three functions support the classification and accurate detection of vehicle and human); parking detection, loitering detection, and people gathering.

Face Recognition	Face recognition, track, priority, snapshot, face enhancement, face exposure, face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, sadness, disgust, fear, surprise, calm, happiness and confusion), mask, beard Face matting setting: face, single inch photo Two snapshot strategies: priority snapshot, recognition Face angle filter Priority time setting Management of 5 group face libraries Single person register and person register in batch Face recognition and similarity setting Max supports face contrast in face library with 200,000 faces ; Support Duration Optimal, Non-living Filtering
Video Metadata	Support human body, human face, motor vehicle and non-motor vehicle image capture and attributes extraction.
People Counting	Support tripwire number counting, people counting in area, and displaying and outputting yearly/monthly/ daily reports. Support queue management, and displaying and outputting monthly/daily reports. Support 4 tripwire rules configuration, people counting in 4 areas, and 4 queue management functions
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Video	
Video Compression	H.265, H.264, H.264H, H.264B, MJPEG (only supported by sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
Video Frame Rate	Main Stream: 2688 × 1520 (1–50/60 fps) Sub stream: 704 × 576 (1–25fps); 704 × 480 (1–30fps) Third stream: 1920 × 1080 (1–25/30 fps) Fourth stream: 1920 × 1080 (1–25/30 fps) Fifth stream: 704 × 576 (1–25fps);704 × 480 (1–30fps)
Stream Capability	5 streams
Resolution	4M (2688 × 1520), 3M (2304 × 1296), 1080p (1920 × 1080), 1.3M (1280 × 960), 720p (1280 × 720), D1 (704 × 576/704 × 480), VGA (640 × 480), CIF (352 × 288/352 × 240)
Bit Rate Control	CBR/BR
Video Bit Rate	H.264: 32–10240 kbps
	H.265: 12–10240 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes

HLC	Yes
WDR	140dB
Scene Self-adaptation	Yes
White Balance	Auto/natural/streetlamp/outdoor/manual/regional custom
Gain Control	Auto/ Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(RoI)	Yes (4 areas)
Electronic Image Stabilization(EIS)	Yes
Smart Illumination	Yes
Defog	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 1080p resolution or below.)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Audio Compression	G.711a; G.711Mu; G726; G.723
Alarm Event	Alarm Event such as No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; defocus detection; external alarm; Face Recognition; people counting in area; stay alarm; people counting; people counting exception detection; safety exception, Queue Management
Network	
Network	RJ-45 (10/100/1000 Base-T)
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P; RTMP
User/Host	20 (TOTAL BANDWIDTH: 80M.)
Storage	FTP; Micro SD card (256 G); NAS; SFTP

Browser	Internet Explorer 9 or later; Chrome: Chrome 42 and later Firefox: Firefox 48.0.2 and later
Management Software	Smart PSS, DSS, DMSS
Mobile Phone	iOS, Android
Certification	
Certifications	CE-LVD: EN62368-1,EN60950-22 (optional) CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07,UL 50E NEMA Type 4X (optional)

Port	
RS-485	1 (Bit rate: 1200 bps–115200 bps)
Audio Input	Audio Interface: 1/1 channel In/ Out
Audio Output	
Alarm Input	3 channel In: 5mA 5V DC
Alarm Output	2 channel Out: 1000mA 30V DC/500mA 50V AC
Power	
Power Supply	12V DC/24V AC/PoE+ (802.3at); ePoE
Power Consumption	Basic power consumption: 5.4W (12V DC); 5W(24V AC); 4.9W (PoE) Max. power consumption (Max. stream + intelligent function + IR LED + focus): 16.7W (12V DC);15.7W(24V AC); 15.6W (PoE) Heat power consumption: 3.3W (12V DC);5.5W(24V AC); 5.5W (PoE)
Environment	
Operating Conditions	-40°C to +60°C (-40°F to +140°F)/Less than 95% RH
Storage conditions	-40°C to +60°C -40°F to +140°F)
Protection Grade	IP67, IK10, Anti-Corrosion Protection: NEMA 4X (optional)
Structure	
Casing	Metal + Plastic

Item 2: Facial Recognition Manager

The Facial Recognition Manager must have the following minimum specification:

High Scalability	High access performance of a single server and easy upgrading via distributed hardware extension and cascading
High Reliability	Up to 300,000 Face database by single device
	Automatic load balancing to the appropriate data node when add devices
High Compatibility	All devices included: network camera, network speed dome, decoder, NVR, DVR, Face Recognition, ANPR, etc.
Features	
Easy Expansion	· Easy performance upgrade via distributed hardware extension.
	· Easy multi-site management through cascading.
	· Easy function upgrade via add-ons.
High Reliability	· Back up and restore database.
	· Support hot standby for master server.
	· Support N + M redundancy .
High Compatibility	· Connect third-party devices via standard ONVIF protocol.
	· SDK for third-party platform or mobile development.
Device Management	· Device initialization
	· Add devices via auto search, IP, Domain, IP segment, auto register (for 3G, 4G, DHCP device).
	· Add third-party devices via ONVIF protocol.
	· Modify device's IP address.
	· Modify the added devices' password.
Storage	· Support edge storage and central storage.
	· Central storage: Extend storage via iSCSI.
	· Server disk configuration for picture storage involving face detection and recognition, alarms, and object detection.
Face Database	· Face database management.
	· Add faces one by one.
	· Import faces in batches.
	· Set person type.
	· Send face database to face recognition devices, and configure similarity.
System Maintenance	
Backup and Restore	· Automatically back up system database (daily, week, month).
	· Manually back up system database.
	· Restore system database from server or local file.
System Dashboard	· Overview and detail system information.

	<ul style="list-style-type: none"> · Running status: CPU, storage, bandwidth. · Service, device and user online information, device health report. · Event information statistics: Total events and processed. · Source information: Video channel, alarm channel.
System Configuration	<ul style="list-style-type: none"> · Configure the data retention duration of logs, alarms, heatmap, face recognition records, and people counting data. · Time synchronization: Timed synchronization and device connection synchronization. · Email server configuration.
Cascading Management	<ul style="list-style-type: none"> · Add subordinate site for cascading. · Superior level can view the live video and video record of subordinate site.
Face Recognition	<ul style="list-style-type: none"> · Automatically capture faces in the camera field of view. · Extract face attribute information from captured face. · Real-time face comparison. · Quickly register face to face database. · Search for face via face attribute. · Search for face via uploading a face image. · Search for comparison records. · Generate daily, weekly, monthly attribute report based on the gender and age.
Performance Specification	
Video Device and Channel	5000
Auto-Register	1000
ANPR Device	1000 Channels
Face Recognition Channel	1000 Channels
Object Detection Channel	2000 Channels
Heatmap Channel	500 Channels
People Counting Channel	500 Channels
Media Transmission per Server	
Video Input per Server	600 Mbps
Video Output per Server	600 Mbps
Playback, Storage and Download	
Download Playback Bandwidth per Server	100 Mbps
Maximum Capacity per Storage Server	15PB
Download Task	5
Maximum Record Plan	100

Alarm	
Alarm Rules	2000
Map	
Hierarchy	8 Hierarchies
Submap	32 per Hierarchy
Spots per Map (Camera Alarm Input and cet.)	300 (GIS and Raster)
Face Recognition	
Face Database	50 face databases with 300,000 face images in total
Import Face image per Time	10,000
ANPR	
Vehicle Restricted List	1000
Number of Sections	1000
Data Info	
Alarm Records	500,000,000
Captured Face Pictures Record	500,000,000
License Plate Recognition Record	500,000,000
Violation Record	500,000,000
People Counting Records	50,000,000
Heatmap Records	50,000,000
Log	500,000,000
Face Capture Ability	
Capture Ability	100,000/ day
Appearance and Dimensions	
Appearance	1U rack
Dimensions	728.4mm×482.0mm×42.8mm (28.68"×18.98"×1.69") (L×W×H, suspension loop included)
System	
Main Processor	Two 8- core Intel Xeon 3106 processors
Operating System	LINUX
Controller	Single Controller
RAM	64 GB DDR4, up to 512 GB, ECC memory
Power Redundancy	1+1 redundant power
RAID Controller	H330

Port	
Network	8 Gigabits ports
Serial Port	1
VGA	2
USB	3 USB3.0 ports
Hard Drive	
Quantity of Hard Drive	Standard: Two 3.5- inch SATA 1 TB enterprise- level HDDs; two 2.5- inch SATA 480GB data center- level SSDs
General	
Power Supply	550W high efficiency platinum 110V- 240 V AC
Power Consumption	Less than 450 W in full load
Operating Temperature	0°C to +40°C (+32°F to +104°F)
Operating Humidity	10%–80% (no condensation)
Storage Temperature	–40°C to +65°C (–40°F to +149°F)
Storage Humidity	5%–95% (no condensation)
Operating Altitude	–60 m to 5000 m (–196.9 ft to 6561.7 ft)
Net Weight	16.7 kg (36.8 lb)
Gross Weight	19.9 kg (43.9 lb)

Item 3: Storage

Facial Recognition Manager

The Facial Recognition Manager must have the following minimum specification:

Functions	
Modular Design	Brand new design for HDD carrier, ensures good cooling, stability and safety for hard disks.
Storage Extension Capacity	Local extension, connect to ESS extension storage by mini SAS interface. Extension storage support redundant power and RAID.
RAID 0/1/5/6/10/50/60	Offering a balance between storage performance, storage capacity, and data integrity, the NVR features fruitfull RAID 0/1/5/6/10/50/60 for faster and safer recording.
N+M Hot Standby	The highly reliable redundancy N+M Hot Standby design provides a secure, failover technique ensuring immediate backup. In the event of a system failure, the slave instantly takes over the master ensuring no data is lost.
ANR (Automatic Network Replenishment Technology)	Video record in SD card in IP cameras when the network breaks down, and after the network recovered, the video will be transferred to NVR and the n recorded in it.

Technical Specification	
System	
Main Processor	64-bit high-performance Intel processor
Controller	Single controller
Memory	4GB by default
Operating System	Embedded LINUX
User Interface	Web
Working Mode	
Video Stream Mode	320-channel (640Mbps) incoming and recording, 160-channel (320Mbps) forwarding, 32-channel (64Mbps) playback
IP SAN Mode	Storage bandwidth ≤ 2.7 Gbps Write-through: 320Mbps; Write-back: 480Mbps
Storage	
HDD Amount	9 HDDs, Up to 10TB capacity for each HDD SATA HDD composite connection
miniSAS	1 mini SAS ports, for storage extension
HDD Installation	Additional HDD bracket, HDD hot-swap, HDD online replacement
HDD Mode	Single, RAID 0/1/5/6/10/50/60(Enterprise-level HDDs are recommended), JBOD, hotspare
Storage Management	
HDD Manager	Non-working HDD hibernation to guarantee sound ventilation, reduce power consumption and enhance HDD life span HDD bad track mapping to enhance HDD life span
RAID Rebuild	Dynamically adjust RAID rebuild speed to guarantee system load balance
Logic Volume Manager	Support iSCSI volume management, NAS(SMB/NFS/ FTP) volume management
Snapshot	Support snapshot function, create user volume to back data.
Extract Frame	Support extracting P frame function. Customized extracting period and frame rate setup.
Cluster Service	N+M cluster service
ANR	After disconnection, system can download the record file from the SD card on the network camera to maintain the full record file.
Shortcut RAID Creation	Click one button to create RAID conveniently.

Playback and Backup	
Search Mode	Time/Date, Channel, Alarm, MD and Exact Search (accurate to second)
Playback Function	Play, Pause, Stop, Fast play, Slow play, Full screen, Backup selection, Digital zoom
Backup Mode	USB Device/Network/ eSATA Device
Recording	
IP Camera Input	320 Channel
Record Rate	640Mbps
Record Mode	Manual, Schedule (Regular, Continuous), Motion Detection, Alarm
Record Interval	1 ~ 120 min (default 60 min)
	Pre-record 1 ~ 30 sec, Post-record 10 ~ 300 sec.
	1 frame storage by period.
Auxiliary Interface	
USB	1 USB 3.0
Multiplex Interface	1 USB 2.0 & eSATA multiplex interface
RS232	1 Port, for PC communication and Keyboard
Network	
Interface	2 data RJ-45 ports (10/100/1000Mbps)
Network Mode	Multi-address, Fault-tolerance, Load balance, Link aggregation
Network Function	HTTP, HTTPs, TCP/IP, IPv4/IPv6, UPnP, RTP, RTCP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, iSCSI, SMB, NFS, FTP, Alarm Server, IP Search (Support IP camera, DVR, NVS, etc.)
Max. User Access	128 users
Smart Phone	iPhone, iPad, Android
Interoperability	ONVIF 2.4, CGI Conformant
Electrical	
Power Supply	AC100V ~ 240V, 47 ~ 63 Hz. 1 + 1 Redundant power
Power Consumption	< 200W (With HDD)
Environmental	
Working Conditions	0°C ~ +40°C (+32°F ~ +104°F), 10 % ~ 80% RH
Storage Conditions	-20°C ~ +70°C (-4°F ~ +158°F), 5% ~ 90% RH
Working Altitude	-60m ~ 3000m

Construction	
Chassis	1.2mm extra-thickness hot-dip galvanized steel.
	High accuracy aluminum alloy slider.
	Self-developed patent removable HDD bracket.
Dimensions (W x D x H)	3U, 484.6mm x 473.6mm x 133.2mm ; (19.1" x 18.6" x 5.2")
Net Weight	11kg (24.3 lb) (without HDD)
Gross Weight	16kg (35.3 lb)
Certifications	
CE	EN55022, EN55024, EN50130-4, EN60950-1
FCC	Part 15 Subpart B, ANSI C63.4-2009
UL	UL 60950-1 and CAN/CSA C22.2 No.60950-1

Item 4: POE Switch (114 Units)

The POE Switch must have the following minimum specification:

System Overview	<p>The 9-Port Unmanaged Desktop Switch with 8-Port PoE is a type of layer 2 commercial switch, which supports long distance Ethernet power supply.</p> <p>Must provide eight 10/100 Mbps Ethernet ports and one 10/100/1000 Mbps uplink port and must be equipped with two types of transmission modes (Default/Extend), which are controlled by DIP switch.</p> <p>Must have a solid and sealed all-metal case design, low power consumption, fan less and efficient surface heat dissipation make it work in the environment from -10°C to 55°C.</p>
FUNCTION	
Intelligent PoE	<p>Adopt PoE power consumption management strategy, and supply power to important ports first. When total power consumption exceeds the set threshold value of the system, power down the ports from large port number to small port number. Adopt smart detection to prevent outage.</p> <p>Supply power with ultra-wide power range, and adapt to IPC power consumption fluctuations in severe environment.</p>
Eight-PIN Assignment PoE Power Supply	<p>The Eight-PIN Ethernet port supports power supply, to enhance frontend and rear-end compatibility.</p> <p>Reduce cable loss and promote loading capacity.</p>
Hi-PoE 60W (Orange Port)	Besides IEEE802.3af and IEEE802.3at, orange port also supports max. 60W output.
Long Distance PoE	<p>250 m long distance PoE transmission.</p> <p>Layer 2 commercial switch</p>

	<ul style="list-style-type: none"> · Supports IEEE802.3, IEEE802.3u, IEEE802.3ab and IEEE802.3x standards · MAC auto study and aging, MAC table size is 2K · MDI/MDIX self-adaption. · Adopts metal enclosure · Port 1 supports Hi-PoE 60W power supply · Wall-mount installation · Anti-theft lock hole · Long distance PoE
Easy Installation	Support desktop and wall mounting. The anti-theft lock hole supports mechanical anti-theft function.
Wide Working Temperature	With operating temperature ranging from -10°C to +55°C (+14°F to +131°F), the switch is designed for relatively severe temperature environments.

Technical Specification	
Hardware	
Ethernet Port	Port 1-8:8 × RJ45 10/100M(PoE) Port 9:1 × RJ45 10/100/1000M(Uplink)
PoE Budget	Port 1 ≤ 60W(Hi-PoE), Port2-8 ≤ 30W, total ≤ 96W
Power Consumption (static)	2.7W
Standards Compliance	IEEE802.3, IEEE802.3u, IEEE802.3x
PoE Standard	IEEE802.3af, IEEE802.3at, Hi-PoE
PoE Pin Assignment	PoE/Hi-PoE:1, 2, 4, 5 (V+), 3, 6, 7, 8 (V-)
Long Distance	250 m, 10 Mbps
PoE Management	Support
Switching Capacity	3.6 Gbps
Packet Forwarding Rate	2.678 Mpps
Packet Buffer Memory	1 Mbit
MAC Table Size	2K
Flow Control	Enable by default
Operating Humidity	5%–95%
Power Supply	External power adapter: 53V DV
Thunderproof	Common mode: 4kV Differential mode: 2kV
ESD	Air discharge: 8kV Contact discharge: 6kV
Mounting	Support desktop and wall mounting
Anti-theft Lock Hole	Support

Operating Temperature	-10°C to 55°C (14°F to 131°F)
Weight	Net weight: 0.47 kg (1.04 lb) Box weight (with accessory): 1.28 kg (2.82 lb) Protective box weight (with accessory): 10.98 kg (24.21 lb)
Dimensions (W x D x H)	190 x 100 mm x 30 mm (7.48" x 3.94" x 0.9")

Item 5: SD WAN Controller 16 units

The SD WAN Controller must have the following minimum specification:

WAN Interface	1x GE 2x LTE Modems
LAN Interface	4x GE
Router Throughput	120Mbps
Hot Failover	Yes
WAN Smoothing	Yes
Bandwidth Bonding	Yes
Number of VPN Peers	2/5
Throughput (No Encryption)	40Mbps
Throughput (256-bit AES)	20Mbps
Recommended Users 1-100 Recommended Users	1-60
LTE Modem	Downlink/Uplink Datarate: 150Mbps/50Mbps
Wi-Fi Standard	2.4GHz: 802.11b/g/n OR 5GHz: 802.11a/n
Wi-Fi as WAN	Yes
Antenna Connectors	4x SMA Cellular, 2x Wi-Fi, 1x SMA GPS
Power Input	Device: 12V – 28V DC AC Adapter: AC Input 100V – 240V / DC Output 12V Terminal Block: 12V – 28V DC
Power Consumption	24W (max.)
Dimensions	5.1 x 4.3 x 1.6 inches
(L x W x H)	130 x 110 x 41 mm
Weight	1.2 pounds / 515 grams
Operating Temperature	-40° – 149°F / -40° – 65°C
Humidity	15% – 95% (non-condensing)
Warranty	1-Year Limited Warranty
Certifications	IC, FCC, CE, RoHS

Item 6: SD WAN Platform 1 unit

The SD WAN Platform must have the following minimum specification:

Base Chassis	
WAN Interface	2x 10G SFP+ Ports
	2x GE Ports
	2x USB 3.0 Ports
	1x Expansion Module (Option)
LAN Interface	8x GE Ports with PoE+ Output
Router Throughput	12 Gbps
VPN	No Encryption: 1 Gbps
Throughput	256-bit AES: 600 Mbps
Recommended Users	500-2000
Max VPN/ Peers	300
Power Input	AC Input 100V - 240V
PoE Output	8x 802.3at PoE+ Output
Power Consumption	80W System*
	330W PoE+ Power Budget
Dimensions	17.2 x 13.3 x 1.7 inches
	438 x 340 x 44 mm
Weight (No Modules)	11.7 pounds
	5.3 kg
Operating Temperature	32° – 104°F (0° – 40°C)
Humidity	5% – 90% (non-condensing)
Certifications	FCC, IC, CE

Item 7: Server 1 unit

The server must have the following minimum specification:

SERVER SPECIFICATIONS	
Form Factor	Must be 2U rack-mount
Processor	Must have at least one (1) Intel Xeon processor with minimum of 12 cores
Memory	Must have at least 128 GB of DDR4 RAM
Storage	4TB (usable capacity)
Drive Types	
Internal storage capacity	2.5-inch models: with minimum of Up to 2 TB usable capacity

Optical drive bays	must have at least 4 Hot Swappable Drive Bays for 2.5"
Network interfaces	Must have minimum of one (10/100/10000 Mbps Base Ethernet)
I/O expansion slots	Front: 1x USB 2.0 port and 1x USB 3.0 port; optional 1x VGA port. Rear: 2x USB 3.0 ports and 1x VGA port; optional 1x DB-9 serial port.
Power Supply	Must have Hot-swap power supply
Operating systems	Microsoft Windows Server 2019 downgradeable to 2016

UPS	
Max Configurable Power (Watts)	1.0kWatts / 1.5kVA
Output Voltage Note	Configurable for 220 : 230 or 240 nominal output voltage
Topology	Line interactive
Waveform type	Sine wave
Transfer Time	6 ms typical : 10 ms maximum

Item 8: RFID Reader 232 units

The RFID Reader must have the following minimum specification:

Physical Characteristics	
Dimensions	102.8 mm(L) x 102.8 mm(W) x 28 mm(H)
Weight	329 g / 11.6 oz. (without antenna)
Material	Aluminum alloy
Input Voltage	DC 9V – 12V
Standby Current	< 30mA
Comm Interface	RS-232 / RJ45
GPIO	2 channel input optical coupling, 1 channel output electric relay, 1 channel output optical coupling (in reserve)
Baud Rate	115200 bps
Cooling Mode	Air cooling
Work Current	800mA +/-5% @ DC 12V Input
Ethernet interface	10/100 Base-T Ethernet (RJ45)
User Environment	

Operating Temp.	-25 °C to 65 °C
Storage Temp.	-40 °C to 85 °C
Humidity	10%- 95%
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Protocol	EPC Class 1 Gen 2 / ISO 18000-6C
Antenna	Supporting a variety of antennas, such as 6dBic, 9dBic
Output Power	1W (30dBm, support +5~+30dBm adjustable) 2W Optional (33dBm, , for Latin America, etc.)
Output Power Precision	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -88 dBm
RSSI	Supported
Ambient Temp Monitor	Supported
Fastest Read Rate	900+ tags/sec
Antenna Detector	Supported
Antenna Port	4 channel 50Ω SMA port
RFID Antenna	
Electrical	
Frequency Range	902-928MHz / 865-868MHz
Polarization Type	RHCP
Gain	5dBi
3dB Beam-Width. H-Plan	80°
3dB Beam-Width. E-Plan	70°
VSWR	≤1.3
Front to back Ratio	≥17dB
Input Impedance	50Ω
Max Input Power.	20W
Lightning Protection	DC Grounded
Mechanical	
Connector Type	SMA male
Dimensions H*W*D (mm)	145*145(mm)
Radome Material	ABS
Cable	LMR200
Radome color	white
Operating Temperature Rang	-40°C/+60°C

Item 9: RFID Card 5,000 pcs for Regular Employee only

The RFID must have the following minimum specification:

Working Frequency	LF: 125kHz and UHF: 860-960MHz
Printer	Printing of RFID

Item 10: 43" LED TV (116 units)

The 43" LED TV must have the following minimum specification:

Panel Size	43"
Display Ratio	16:9
Maximum Resolution	1920 x 1080
Brightness	260 cd/m ²
Contrast	1200:1
View Angle	178°/178°
Backlight	LED

Item 11: Mini PC (116 units)

The Mini PC must have the following minimum specification:

CPU	Intel® Core™ i5-1145G7 Processor (8M Cache, up to 4.40 GHz)
CPU Cores / Thread	4/8
Graphics	Intel® UHD Graphics
Memory	2 x 4GB DDR4 3200
Storage	500GB Gen 4 NVMe SSD
Connectivity	Integrated LAN: Intel® Ethernet Controller i225-LM Integrated Wireless†: Intel® Wi-Fi 6 AX201 Integrated Bluetooth: Yes Thunderbolt: 1x Thunderbolt™ 4, 1x Thunderbolt™ 3
IO Ports and Connectivity	Front: 2x USB 3.2 Rear: 2x USB 4 (type C), 1x USB 3.2, 1x USB 2.0 Internal: 1x USB 3.2 on m.2 22x42 (pins), 2x USB 2.0 (headers)
Advanced Technologies	Intel® Virtualization Technology for Directed I/O (VT-d) Intel vPro® Platform Eligibility Intel® ME Firmware Version Intel® Virtualization Technology (VT-x)
OS	Windows 10

Item 12: Door Access Control stainless steel mount (12 Units)

The Door Access Control must have the following minimum specification:

Authentication Method		Card
	Max Users	200,000
Log Capacity	Event Logs	1,000,000
	Images	15,000
Communication	With Server	TCP/IP
	Other	Bluetooth/USB
	Wireless LAN(Wi-Fi)	Optional
	Wiegand OUT	Yes
	RS232	Yes
	RS485	Yes
	Wiegand IN	Yes
Display	LCD	4"Color Touch
	Backlight	Yes
Embedded Camera		Yes
Card	125khz-EM	Yes
Keypad		Touch Screen
Function keys		SOFT
Door Phone		Voip
Dimension	(W) X (H) X (D) mm	80 X 153 X 18.2
Operating Temperature		-20 ~ 60°C

Item 13: Flap Barrier Turnstile (2 sets)

The Flap Barrier must have the following minimum specification:

Power requirements	AC 100/200, 50/60Hz
Working temperature	-28°C~60°C
Working environment	Indoor/outdoor
Lane width(mm)	550 and 900 (customized)
Dimensions(mm)	L=1200, W=300, H=980
LED indicator	Y
Cabinet material	Stainless Steel
Lid material	Stainless Steel
Barrier material	Acrylic
Barrier movement	Retracting
Security level	Medium

8. PROJECT MANAGEMENT SERVICES

8.1 Project Management Team (PMT)

The System Provider shall organize a Project Management Team to deliver the requirements and timelines set on the project. A Project Manager shall be assigned to oversee the implementation of the project. The Project Management Team shall meet the following requirements:

- one (1) Project Manager with the following qualifications:
 - a. With a valid Project Management Training certification from accredited Project Management Institute such as Apex Global, Phoenix One and UDEMY
 - b. completed four (4) Information system projects over the last five (5) years reckoned from the date of the opening of bids;
- One (1) Electronic Communication Engineer (ECE) to be assigned at the Philippine Ports Authority (PPA) Headquarter in Manila for the entire duration of contract;
 - a. One (1) Full-Time Technical Personnel assigned at the PPA Headquarter in Manila for the support and maintenance of the entire system.

The Full-Time Technical Personnel shall report from Monday to Friday, from 8AM to 5PM. In case the assigned personnel will be on leave, a replacement/backup personnel shall automatically be assigned to takeover the duties and responsibilities.

- The Project Management Team shall submit a weekly project progress Status report.
- Project Reporting – submit a weekly project progress report or as requested by PPA.

8.2 Project Management Plan (PMP)

- a. The System Provider shall provide a Project Management Plan (PMP) within fifteen (15) calendar days from the receipt of Notice to Proceed and signed contract.

Components of the PMP must include the following:

- Project Team Composition and Responsibility Matrix
 - Gantt Chart and Schedules
 - Work Breakdown Schedule
- b. The System Provider shall provide the implementation timeline and the project completion date in the PMP.
 - c. The System Provider shall provide the necessary equipment, cables, and other components to successfully install, maintain, monitor, and manage the entire network.

9. CONTRACTOR'S QUALIFICATIONS

- a. The System Provider must be duly registered and has been in active operation for the last ten (10) years.
- b. The System Provider must have undertaken a project with nationwide deployment of hardware and software in more than 100 locations all over the country.
- c. The System Provider must be an ISO 9001:2015 certified company with certification scope specifically: To provide high quality solutions for System Integration which involves Integration, Implementation and Providing After Sales Service of IT related products and software solutions.
- d. Must have completed a single largest contract similar to the contract to be bid whose value must be at least equivalent to fifty percent (50%) of the ABC. For this purpose, a similar contract means contract for the Supply and delivery of any Information Communication Technology equipment and systems such as mini pc, thin client, zero client, facial recognition and smart security systems.

10. WARRANTY

- a. The Facial Recognition System (FRS) with Mobile Application System Provider shall warrant the customized FRS free from any hardware defect, configuration/software errors from the date of turn-over to PPA. Within two (2) years from the date of acceptance by the PPA, the contractor shall appropriately inform of possible bugs, issues and technical concerns affecting the FRS, promptly act to fix the problem at no expense to PPA.
- b. The products and the system provided shall have a minimum of two (2) years warranty parts and services for all equipment and software delivered.
- c. If connections are to be relocated, the reconnection must be performed by the Service Provider without any extra cost to PPA.
- d. In the event of renovation, repair, rehabilitation and stop of operation, PPA can nominate a replacement with the consideration of service provider's infrastructure coverage.
- e. The System Provider must ensure the project owner from and against all liabilities from damages arising from injuries or disabilities to persons, or damages to property occasioned by any or omission of the system provider, or any of his subcontractors, including any and all legal expenses or otherwise.
- f. The System Provider must address every incident encountered promptly in accordance with the Service Level Agreement as follows:
 - Must Include technical support within Business Hours for problems related to contracted services and helpdesk. Onsite support must be provided immediately when the issue was first reported.

- If incident happen during off-hours duty, remote support must be provided within one (1) hour from when the issue was first reported.
 - If the issue has not been remotely resolved, on-site support must be provided within the first two (2) hour period following discovery/report if within Metro Manila and within seventy-two (72) hours for those outside Metro Manila.
 - Must provide the needed repair services and parts services within the first four (4) hours when the issue has been raised.
 - Service Level Agreement (SLA) for Facial Recognition must not be less than 99.5% uptime.
- g. The System Provider must be an authorized and accredited service provider of the manufacturer. A proof of certification is required. (Facial Recognition Camera, POE Switch, RFID Reader, Server, Turnstile, Mini PC, and Door Access Device).
 - h. Certificate on the Availability of Spare Parts shall be provided by the bidder to ensure immediate replacement of defective parts within the warranty period. The Supplier shall warrant the availability of spare parts for a period of at least five (5) years from the purchase of the subject units.
 - i. Spare parts or components shall be supplied as promptly as possible, but in any case, within seven (7) days from placing the order.
 - j. Burn-in tests will be conducted on the servers. It will be a series of hardware intensive tests for a period of 12 to 24 hours or more, any component that is defective would show up during the burn-in period.

11. PAYMENT SCHEDULE/MILESTONE

The comprehensive Facial Recognition System with Mobile Application shall commence after the receipt of the Notice to Proceed (NTP)

Payment, which shall be made in Philippine Currency, shall be per services delivered according to the following schedule:

Deliverables	Percentage
1. Inception Report/Requirements Specification	10% of the contract price
2. Delivery of Hardware Components	60% of the contract price
3. User Acceptance Training and Testing	20% of the contract price
4. Full deployment to production	10% of the contract price

12. OWNERSHIP AND CONFIDENTIALITY OF DATA

- a. All data/information related to the development of the information system that may be shared by the Philippine Ports Authority in the course of evaluating the various modules, functions, and features of the customized solution, shall remain confidential and shall not be copied, divulged, transmitted or shared in any way to third parties.

- b. All required software/technology licenses purchased for the system solution shall be named under the Philippine Ports Authority.
- c. All pertinent records of PPA personnel, employee's dependents, work assignments, performance appraisals, and other HR-related information entered into and recorded by the system shall be owned by the Philippine Ports Authority.
- d. The System Provider shall ensure that such information shall be treated with confidentiality through a non-disclosure agreement.
- e. The System Provider shall abide by the provisions stipulated in the Data Privacy Act.



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Manager
Human Resource Management Department

***Section VIII. Checklist of Technical and
Financial Documents***

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
or
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document,
and
- (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
and
- (d) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

- (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; **and**
- (h) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**
- (i) Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; **and**
- (j) Original duly signed Omnibus Sworn Statement (OSS);
and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (k) The Supplier's audited financial statements, showing, among others, the Supplier's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**
- (l) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC);

or

A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class "B" Documents

- (m) If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence;

or

duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Other documentary requirements under RA No. 9184 (as applicable)

- (n) *[For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos]* Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- (o) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

25 FINANCIAL COMPONENT ENVELOPE

- (a) Original of duly signed and accomplished Financial Bid Form; **and**
- (b) Original of duly signed and accomplished Price Schedule(s).

**Bid Form for the Procurement of Goods
[shall be submitted with the Bid]**

BID FORM

Date : _____

Project Identification No. : _____

To: [name and address of Procuring Entity]

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to [supply/deliver/perform] [description of the Goods] in conformity with the said PBDs for the sum of [total Bid amount in words and figures] or the total calculated bid price, as evaluated and corrected for computational errors, and other bid modifications in accordance with the Price Schedules attached herewith and made part of this Bid. The total bid price includes the cost of all taxes, such as, but not limited to: [specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties], which are itemized herein or in the Price Schedules,

If our Bid is accepted, we undertake:

- a. to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBDs);
- b. to provide a performance security in the form, amounts, and within the times prescribed in the PBDs;
- c. to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements pursuant to the PBDs.

The undersigned is authorized to submit the bid on behalf of [name of the bidder] as evidenced by the attached [state the written authority].

We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Name: _____

Legal capacity: _____

Signature: _____
Duly authorized to sign the Bid for and behalf of: _____
Date: _____

Price Schedule for Goods Offered from Abroad
 [shall be submitted with the Bid if bidder is offering goods from Abroad]

For Goods Offered from Abroad

Name of Bidder _____ Project ID No. _____ Page ___ of ___

1	2	3	4	5	6	7	8	9
Item	Description	Country of origin	Quantity	Unit price CIF port of entry (specify port) or CIP named place (specify border point or place of destination)	Total CIF or CIP price per item (col. 4 x 5)	Unit Price Delivered Duty Unpaid (DDU)	Unit price Delivered Duty Paid (DDP)	Total Price delivered DDP (col 4 x 8)

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Price Schedule for Goods Offered from Within the Philippines
[shall be submitted with the Bid if bidder is offering goods from within the Philippines]

For Goods Offered from Within the Philippines

Name of Bidder _____ Project ID No. _____ Page ___ of ___

1	2	3	4	5	6	7	8	9	10
Item	Description	Country of origin	Quantity	Unit price EXW per item	Transportation and all other costs incidental to delivery, per item	Sales and other taxes payable if Contract is awarded, per item	Cost of Incidental Services, if applicable, per item	Total Price, per unit (col 5+6+7+8)	Total Price delivered Final Destination (col 9) x (col 4)

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Bid Securing Declaration Form
[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

BID SECURING DECLARATION
Project Identification No.: [Insert number]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month]
[year] at [place of execution].

[Insert NAME OF BIDDER OR ITS
AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

Contract Agreement Form for the Procurement of Goods (Revised)
[Not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT made the _____ day of _____ 20____ between [name of PROCURING ENTITY] of the Philippines (hereinafter called “the Entity”) of the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called “the Supplier”) of the other part;

WHEREAS, the Entity invited Bids for certain goods and ancillary services, particularly [brief description of goods and services] and has accepted a Bid by the Supplier for the supply of those goods and services in the sum of [contract price in words and figures in specified currency] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as integral part of this Agreement, viz.:
 - i. Philippine Bidding Documents (PBDs);
 - i. Schedule of Requirements;
 - ii. Technical Specifications;
 - iii. General and Special Conditions of Contract; and
 - iv. Supplemental or Bid Bulletins, if any
 - ii. Winning bidder’s bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

Bid form, including all the documents/statements contained in the Bidder’s bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder’s response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity’s bid evaluation;
 - iii. Performance Security;
 - iv. Notice of Award of Contract; and the Bidder’s conforme thereto; and
 - v. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such

as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.

3. In consideration for the sum of [total contract price in words and figures] or such other sums as may be ascertained, [Named of the bidder] agrees to [state the object of the contract] in accordance with his/her/its Bid.
4. The [Name of the procuring entity] agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of the Republic of the Philippines on the day and year first above written.

[Insert Name and Signature]

[Insert Name and Signature]

[Insert Signatory's Legal Capacity]

[Insert Signatory's Legal Capacity]

for:

for:

[Insert Procuring Entity]

[Insert Name of Supplier]

Acknowledgment

[Format shall be based on the latest Rules on Notarial Practice]

Omnibus Sworn Statement (Revised)
[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. [Select one, delete the other:]

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. [Select one, delete the other:]

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. [Select one, delete the rest:]

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. [Name of Bidder] complies with existing labor laws and standards; and

8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:

a. Carefully examining all of the Bidding Documents;

b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;

c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and

d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].

9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to

deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of __, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS
AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity]

Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Performance Securing Declaration (Revised)
[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
2. I/We accept that: I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year for the first offense, or two (2) years for the second offense, upon receipt of your Blacklisting Order if I/We have violated my/our obligations under the Contract;
3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - i. Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS
AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

**NET FINANCIAL CONTRACTING CAPACITY (NFCC)
COMPUTATION**

A. The values of the bidder's current assets and current liabilities shall be based on the data submitted to the BIR, through its Electronic Filing and Payment System (EFPS).

		Year 20
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Net Worth (1-3)	
6.	Net Working Capital (2-4)	

B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:

NFCC = [(Current asset minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started, coinciding with the contract to be bid

NFCC = Php _____

K = 15

Herewith attached are certified true copies of the income tax return and audited financial statement: stamped "RECEIVED" by the BIR or BIR authorized collecting agent for the immediately preceding year.

Submitted by:

Name of Supplier/Distributor/Manufacturer

Signature of Authorized Representative

