



Provincial Government of Cavite

**PROVISION OF
BIOMETRIC
ATTENDANCE SYSTEM
FOR CAVITE
GOVERNMENT CENTER**

Terms of Reference

EXECUTIVE SUMMARY

Biometrics and facial recognition technology have revolutionized the way attendance monitoring is carried out by government institutions. This innovative approach of the Provincial Government of Cavite has proven to be efficient, reliable, and secure, enabling more accurate tracking of attendance records. With its widespread adoption, biometrics has simplified the process of ensuring attendance compliance and eliminated the need for traditional methods like paper-based systems or ID cards.

The implementation of biometrics and facial recognition systems in the attendance monitoring of PGC employees will transform the way attendance is tracked. Facial recognition technology eliminates the possibility of identity fraud, as it matches an employee's unique facial features against a stored database. This ensures that only the right person is recognized and marked present. With biometric systems in place, the process becomes effortless and efficient. PGC employees can simply walk through a few designated spots equipped with facial recognition cameras, thus reducing congestion during peak hours, saving time and resources for allocation to other projects. Additionally, the use of biometrics ensures the security and privacy of attendance records. Personal information is protected through advanced encryption techniques, ensuring strict confidentiality. Facial recognition databases are maintained with utmost care, adhering to international data protection standards. Unlike traditional methods that may be prone to security breaches or identity theft, biometric attendance monitoring provides an enhanced level of protection for individuals' personal data.

The biometrics and facial recognition technology in attendance management of PGC employees offers numerous advantages for the organization. By simplifying attendance tracking processes, ensuring accuracy and reliability, and enhancing security measures, this cutting-edge technology revolutionizes the way employees' attendance is managed in PGC Building. It saves time, reduces the potential for fraud, and provides a secure means of verifying individuals' identities, ultimately leading to more effective attendance practices and improved operational efficiencies to the public.

The project has a total approved budget cost of **Fourteen Million Seven Hundred Sixty Four Thousand One Hundred pesos (PhP14,764,100.00)**, VAT-inclusive on the entire engagement duration of four (4) years. This includes hardware, software, labor costs, and maintenance services. The project shall be fully operational **sixty (60) calendar days** after the issuance of the Notice to Proceed.

I. GENERAL INFORMATION

a) Project Background/Description

The adoption of biometrics and facial recognition for employee's attendance at Provincial Government of Cavite is a significant step towards enhancing security and streamlining administrative processes. The utilization of biometrics and facial recognition, offers a multitude of advantages over traditional attendance systems. By capturing unique facial features of individuals, this technology ensures enhanced accuracy in identifying PGC employees, thus preventing the potential for time theft and proxy attendance. Moreover, biometric attendance systems eliminate the need for physical identifiers, such as swipe cards or badges, which can be easily misplaced or misused. This modern solution provides a convenient and secure method of authentication, streamlining the attendance-tracking process for both the employees and the administration.

With the implementation of biometrics and facial recognition technology for the new Cavite Government Center, the PGC administration will be able to have significant improvements in attendance management of all the employees. The automated system efficiently records the check-in and check-out times of employees, ensuring precise time tracking and reducing administrative errors. This data can be easily accessed and analyzed, enabling the administration to obtain real-time attendance reports and identify patterns or irregularities. Such insights enable effective human resource planning and facilitate the identification of potential stragglers or absenteeism concerns.

The integration of biometrics and facial recognition attendance systems with employee database in the PGC demonstrates the commitment to efficient and secure operations and enhances administrative efficiency. By this cutting-edge of technology in attendance management, these systems can seamlessly consolidate attendance data and generate real-time reports. This functionality saves considerable time and effort for HR personnel who would otherwise need to manually handle attendance records. In addition, the accuracy and reliability of these systems contribute to precise tracking of attendance, enabling the identification of patterns, trends, or anomalies that could inform decision-making processes related to work performance.

b) High-Level Project Scope

The scope of the project is composed of the following:

1. Provision of biometric addressing the specific needs and goals of the PGC while considering emerging technologies and industry best practices.
2. Provision of Maintenance agreement for 3 years and warranty period of 1 year.
3. Data privacy laws shall be strictly followed and necessary security measures to protect the data collected.

4. All equipment utilized in the overall operation will be the duty and accountability of the winning bidder, who will assure continuity and reach the level of quality of services and assistance stipulated in the Service Level Agreement (SLA), Appendix B, page 15 .

c) Objective

With the ability of the Biometrics and Facial Recognition technology to accurately identify individuals based in their unique physical characteristics, it has emerged as an innovative solution for attendance monitoring in the PGC building. These technologies offer advantages in terms of accuracy, security, and convenience. This system also aims to:

1. Accurately track and record the PGC employees' attendance and simplifies administrative task and allows real-time and accurate tracking of employees' attendance within the building.
2. Enhance security in Cavite Government Center by preventing fraudulent activities associated with manual systems or traditional identification methods like ID cards or signatures
3. Generate accurate and comprehensive reports by automatically recording attendance data that provide real-time insights into attendance patterns such as tardiness, absenteeism and punctuality rates.

II. SCOPE OF WORK

All equipment shall be supplied and installed by the Winning Bidder. The Winning Bidder shall be responsible in obtaining insurance for all equipment.

a) Upon Contract Award/Pre-Installation Activities

1. Submission for approval by the PICTO of Technical Design, such as but not limited to the following:
 - 1.1 Detailed Work Breakdown Structure
 - 1.2 Project Organization Chart
 - 1.3 Communication Plan
2. Submission of detailed implementation schedule (delivery, installation, testing, commissioning, and acceptance) including test procedure work methodology.
3. Signed Maintenance agreement.

b) Supply, Delivery, Installation/Configuration, and Programming Activities

1. Provision of software, devices and equipment needed for Biometric Attendance System.

c) Testing, Commissioning, and Traffic cut-over Activities

1. Submission of a complete test plan for all hardware and software to be delivered and installed which includes the following:
 - 1.1 Hardware Test Plan
 - 1.2 Network Test Plan
 - 1.3 Security Risk Assessment
 - 1.4 Access Management Test Plan
2. The performance and acceptance tests shall commence after PICTO has confirmed that all works conform with the terms of the contract.
3. A test of the provided devices shall be performed to connect the existing Personnel Management Information and Payroll System (PMIPS). If this is not possible, the devices must be replaced with similar or higher specification, with equivalent or higher in market cost in terms of brand and model.
4. Once acceptance tests have been satisfactorily completed, PGC will conduct inspection after which, Certificate of Acceptance will be issued.

d) Training and Systems Acceptance

1. The System Acceptance Test shall need to pass the following tests with PICTO and with appropriate sign-off: Security Risk Assessment and Hardware Acceptance Test. PICTO has the right to add or requests for more tests to ensure that all devices and equipment are working properly and functioning as needed by the organization.
2. The proposal shall include Systems Acceptance Test and Technical Training including Service Operations Processes for PICTO technical personnel as well as other identified personnel required necessary for the installation, configuration, operation, and troubleshooting of the supplied systems and equipment.
3. The Winning Bidder shall submit the Training Program including the complete training items and venue of training prior to the issuance of the final Acceptance Certificate. The Training Program must be accepted first by PICTO.
4. The Winning Bidder shall provide all the necessary training manuals and documents (hard copy) for each participant and one (1) electronic (digital) copy prior to the actual agreed training dates.
5. All training expenses (materials, venue, etc.) shall be for the account of the Winning Bidder.
6. Trainings shall not be limited. PICTO may request for more trainings until PGC personnel are adequate in the operation and maintenance of the systems.

e) Post Implementation

The Winning Bidder shall provide the following documents prior to the issuance of the final Acceptance Certificate:

1. Operational Plan

2. Security Management Plan
3. Equipment Manuals
4. Data privacy documents required by the National Privacy Commission (NPC).

f) Preventive Maintenance

1. Conduct of scheduled preventive maintenance as stated in the Maintenance Agreement.
2. Shall respond to request for assistance within 30 minutes from the time a communication received.

III. EXPECTED OUTPUT/DELIVERABLES

The minimum outputs or deliverables shall include the following during the sixty (60) calendar days roll-out period.

Scope	Deliverables
a) Upon Contract Award/Pre-Installation Activities	<ul style="list-style-type: none"> • Technical Design (Pre-test Report and Detailed Network Diagram) • Detailed implementation schedule (delivery, installation, testing, commissioning, and acceptance) including test procedure work methodology • Signed Service Level Agreement • Signed Management Agreement • Detailed Network Diagram, Detailed Work Breakdown Structure, Project Organization Chart, and Communication Plan
b) Supply and Delivery	<ul style="list-style-type: none"> • Software and devices for Biometric Attendance System (Detailed items with specifications are located in Section IV. Technical Requirements and Appendix A, page12).
c) Testing, Commissioning, and Traffic Cut-over Activities	<ul style="list-style-type: none"> • Complete test plan for all hardware and software to be delivered and installed including tagging and labeling and documentation per area/location
d) Training and Systems Acceptance	<ul style="list-style-type: none"> • System Acceptance Test • Training Plan • Training Manuals
e) Post Implementation	<ul style="list-style-type: none"> • Operational Plan • Security Management Plan • Equipment Manuals • Data Privacy documents required by NPC such as but not limited to the following:

	<ul style="list-style-type: none"> - Privacy Impact Assessment - Privacy Manual - Non Disclosure Agreement
f) Preventive Maintenance	<ul style="list-style-type: none"> • 3-year Maintenance and 24x7 Support • Monthly Preventive Maintenance Report

IV. TECHNICAL REQUIREMENTS

See Appendix A, page 12 for the detailed specifications of all devices and equipment and distribution per building.

ITEM	DESCRIPTION	QTY	UOM
Software for Time and Attendance	Standard Edition with S/W (Up to 100 Doors)	1	set
	Time and Attendance professional Edition License Module (Unlimited users)	1	set
Biometric Reader Hardware	Facial Recognition with Smart Card Reader	30	set
	Regulated Power Supply Unit 6,12,24VDC / 3A w/ Battery Charger w/ Metal Enclosure and Transformer	15	set
UPS	1KVA Online UPS	9	set

V. IMPLEMENTATION AGREEMENT

- a) Contact: Jahn Leniel S. Moya, Project Manager – (046) 419-0157
- b) A Project Management Group (PMG) will be formed, comprised of members from the Office of the Human Resources Management Officer and the Provincial ICT Office, and led by a person (the Project Manager) capable of providing clear direction and oversight as the project progresses.
- c) Reporting obligations, notices, and approval process including minimum or essential reports' contents shall directly be coordinated to the Project Manager who will, in turn, approve notices and acceptance of deliverables, activities, and other related tasks.

VI. ROLES AND RESPONSIBILITIES OF THE WINNING BIDDER

- a) The Winning Bidder shall complete the delivery and installation of work within the prescribed period (*please refer to Section IX: Duration of Engagement, Timeline, and Level of Effort*) after the issuance of the Notice to Proceed. An official project kickoff shall be organized by the assigned Project Manager for the Winning Bidder to present their intended project implementation. The project kickoff shall take place within five days after receiving the Notice to Proceed

- b) PMG shall meet and coordinate with the Winning Bidder for the rules and regulations on each site during the actual implementation of the Contract.
- c) The completion schedule provided shall be considered extended under the following, which shall be validated by PICTO:

Delays caused by the following:

1. Force majeure or fortuitous events;
2. Change management which includes, but not limited to, site validation, resolution of issues and the like.

The cause of the delay must be communicated in writing to the PMG ten (10) days prior to the end of the implementation of the project; and with the concurrence and approval of PGC through PMG. In all cases, claims for extension of implementation period due to any of the above causes shall be subject to approval by PGC.

Note: Fortuitous events or force majeure, by definition, are extraordinary events not foreseeable or avoidable, events that could not be foreseen, or which, though foreseen, are inevitable

VII. QUALIFICATIONS OF THE WINNING BIDDER

- a) The Winning Bidder to be contracted should comply with the eligibility requirements set forth under Section 24 of the Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184, or the Government Procurement Reform Act (GPRA).

Subsequently, the list of eligible and qualified provider shall be shortlisted based on the following:

1. Must provide a certification that it's network platform is compliant to the latest MEF Carrier Ethernet (3.0) in all Ethernet Service Types.
2. Must submit a certification from the manufacturer or its local distributor stating that the availability of parts for the equipment shall be for a period of at least Four (4) years from the date of final acceptance.
3. Must be an authorized reseller/partner of the manufacturer, or its local distributor supported by applicable Certifications.
4. Must be an ISO 9001 certified with a minimum of five years experience in producing access control equipment.
5. Must have a dedicated Project Management Office (PMO) led by a Project Management Professional (PMP) Certified individual. This ensures effective project management methodologies, meticulous planning, and execution throughout the project's lifecycle. Having a PMP Certified Lead within the PMO adds a layer of expertise in project management, enhancing the project's overall efficiency and success.
6. Must submit a list of the names of the team members who will be involved in the project, together with the detailed experience/certification required to complete the project. Personnel with the required qualifications must be included in the Project Team Members.

7. Must have at least 2 years experience in Data Privacy implementation and has registered Data Processing System including Privacy Manual to NPC.

b) Documents Required for Submission:

1. Company Profile with a list of clients
2. Work Methodology – provide concise, complete, and logical descriptions on how to carry out the activities or services to meet all requirements of the TOR.
3. List of facilities and other resources to be provided by the PICTO that may include support facilities such as office space, equipment, administrative support, and others that would be needed to carry out the project.
4. Certified true copies of all certifications/documents mentioned in letter a.
5. Financial Proposal
 - Summary of Costs
 - Breakdown of Price per Equipment

c) Post-qualification Requirements

1. All proposed devices and equipment shall be included in the bidding documents, which will be reviewed in the post-qualification phase of the bidding process. PICTO shall inspect the proposed equipment to be delivered in order to ensure the quality of each item.
2. A pre-test report demonstrating that the proposed devices can connect to the current PMIPS must be provided.
3. All offers/proposals shall comply with each Technical Specifications listed in IV. Technical Requirements of this TOR. The specifications provided therein are minimum requirements, BAC and PICTO have the right to add more requirements needed to ensure the quality of deliverables.

VIII. APPROVED BUDGET COST

The total contract price shall not exceed **Fourteen Million Seven Hundred Sixty Four Thousand One Hundred pesos (PhP14,764,100.00)**, VAT-inclusive for the entire engagement duration with details below:

No.	Description	Qty	UOM	Unit Cost	Amount
1	Standard Edition with S/W (Up to 100 Doors)	1	Set	1,335,000.00	1,335,000.00
2	Time and Attendance professional Edition License Module (Unlimited users)	1	Set	1,625,000.00	1,625,000.00
3	Facial Recognition with Smart Card Reader	30	Set	236,000.00	7,080,000.00
4	Regulated Power Supply Unit 6,12,24VDC / 3A w/ Battery Charger w/ Metal Enclosure and Transformer	15	Set	23,000.00	345,000.00
5	1KVA Online UPS	9	Set	108,000.00	972,000.00
Subtotal (Outright)					11,357,000.00

6	30% Retention Fee (Maintenance) for 3 years	3,407,100.00
Grand Total		14,764,100.00

- a) Payment will not begin until the project has been fully completed and the Provincial ICT Office (PICTO) has issued the Certificate of Acceptance.
- b) Maintenance payment will start a year after the official acceptance and then every six (6) months after that for 3 years. Payment will be as follows:

30% Retention Fee (Maintenance for 3 years)	
Year 1 (30%)	1,022,130.00
6 th month	511,065.00
12 th month	511,065.00
Year 2 (30%)	1,022,130.00
6 th month	511,065.00
12 th month	511,065.00
Year 3 (40%)	1,362,840.00
6 th month	681,420.00
12 th month	681,420.00
Total	3,407,100.00

IX. DURATION OF ENGAGEMENT, TIMELINE, AND LEVEL OF EFFORT

- a) The contract shall have a maximum term of four (4) years with a provision to terminate/revoke for a cause.
- b) After the issuance of the Notice to Proceed, the completion of delivery, installation, and commissioning of all the equipment and software shall be made within the committed timeline of sixty (60) calendar days.
- c) The Three (3) years maintenance will start a year after the official acceptance of the project.
- d) Upon renewal of Maintenance Agreement, offered cost shall not exceed the stated cost under Approved Budget Cost.

X. BUSINESS CONTINUITY PLAN

The Winning Bidder shall have an optional business continuity plan and disaster recovery plan to offer to the Provincial Government of Cavite. It should cover all the critical services of the project and shall have an activation time agreeable to PGC. The Winning Bidder shall provide detailed implementation plan and when availed, should satisfy the following:

- Be in place in not less than 24 hours
- Any equipment that becomes defective or have failed or malfunctioned within the one (1) year warranty period will be attended to or be replaced immediately by the Winning Bidder. The equipment to deploy as replacement should be equivalent to the original brand and specifications or higher as long as compatible with the existing design and configuration of the system and should be approve by PICTO.

- In case of licenses, Winning Bidder will shoulder the licenses cost.
- Winning Bidder shall be responsible for all the cost related to the warranty period for hardware products.

PGC can exercise business continuity provisions from time to time for simulation and inspection purposes.

XI. TERMINATION OF PROJECT

The PGC shall terminate the contract, upon notice to the Winning Bidder, based on the following grounds/instances:


- a) The Winning Bidder fails to deliver or perform any or all of the deliverables within the period(s) specified in this TOR, or within any extension thereof granted by the PGC pursuant to a request made by the Winning Bidder prior to the delay, and such failure amounts to at least ten percent (10%) of the total contract price;
- b) In case of *force majeure*, the Winning Bidder is unable to deliver or perform any or all of the deliverables/services under the project, amounting to at least ten percent (10%) of the total contract price, for a period of at least sixty (60) calendar days after receipt of the notice from the Procuring Entity stating that the *force majeure* has ceased;
- c) The Winning Bidder fails to completely deliver, install, and commission all the deliverables, equipment, and needed accessories and software within the committed timeline;
- d) The Winning Bidder fails to comply with the Technical Specifications listed in the TOR despite due notice and demand;
- e) The Winning Bidder fails to perform any other obligation under the TOR, the agreement, and all other applicable rules and regulations;
- f) The PGC may terminate the contract, in whole or in part, at any time for its convenience if the procuring entity has determined the existence of conditions that make the project Implementation economically, financially, or technically impractical and/or unnecessary;
- g) If the Winning Bidder is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, the termination will be without compensation to the Winning Bidder, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or Winning Bidder;
- h) The Winning Bidder has engaged, before or during the implementation of the contract, in unlawful acts in relation to the award and implementation of the contract. Unlawful acts include, but are not limited to, the following:
 - i. Corrupt, fraudulent, collusive, and coercive practices;
 - ii. Drawing up or using forged documents;
 - iii. Using adulterated materials, means or methods; and
 - iv. Any other act analogous to the foregoing.

Prepared by:



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Approved by:



JAHN LENZEL S. MOYA
Officer-In-Charge, Provincial ICT Office

Noted by:



HON. ATHENA BRYANA D. TOLENTINO
Provincial Governor

APPENDIX A: Detailed Technical Requirement

The Facial Recognition device shall:

1. Connect to the software via a TCP/IP network, complying with standard network protocols.
2. Centralize the storage of biometric and access group data and must support fingerprint matching.
3. Have an RS485-port interface for Slave biometric/RF Readers and support locks, sensors, request to exit, and other alarm devices.
4. Boast exceptional authentication accuracy achieved through the fusion matching of visual and infrared (IR) Face Recognition.
5. Have a unique algorithm that optimizes IR and Visual Face Recognition to deliver the industry's best face recognition and anti-spoofing performance.
6. Offer a wide range of authentication options, including Face, Mobile Access, and Cards.
7. Support a minimum of 50,000 users.
8. Support the reading of Barcodes and QR Codes.
9. Be able to detect and limit access for users not wearing masks.
10. Detect and identify users with elevated skin temperature using Thermographic technology.
11. Be an AI-based, allowing user enrollment through profile photo uploads.
12. Be built on Android with all its security enhancements, encrypting all biometric credentials and personal information, and ensuring the highest level of device security, including a secure booting process.
13. Support dual-frequency access cards, NFC, and BLE Mobile Access Cards.
14. Operate with RF Options: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire EV1/EV2, FeliCa.
15. Operate with RF Read Range: EM/MIFARE/DESFire: 50 mm (2"), FeliCa: 30 mm (1.2") (*RF read range may vary depending on the installation environment*).
16. Have a minimum of a 1.5GHz Quad-Core CPU.
17. Have a Memory of 16GB Flash + 2GB RAM.
18. Have a touchscreen LCD with a 5.5" IPS color LCD with a 720x1280 pixel resolution.
19. Have compliance certifications, including GDPR, KC, CE, UKCA, FCC, and RCM, and comply with RoHS, REACH, and WEEE regulations.
20. Support recognition distances ranging from a minimum of 0.6 to 1.0 meters and recognition heights ranging from a minimum of 1.4 to 1.9 meters.
21. Have a Face Recognition Matching Speed less than 0.5 sec.

Distribution per building

Floor	Building				
	OPG	SP	Finance	GSO	NAO
Lower Ground		1	2		
Upper Ground	6	2	2	3	
Second Floor	4				
Third Floor	4				
Attic	3				
TOTAL	17	3	4	3	0

Total - 27

Spare - 3

Note:

OPG – Office of the Provincial Governor

SP – Sangguniang Panlalawigan

GSO – General Services Office

NGA – National Agency Office

APPENDIX B: Service Level Agreement (SLA)

I. Response Time

Support activities may vary depending on the nature of the problem being reported by The Provincial Government of Cavite.

For issues requiring alerts and immediate resolution, the process flow for reporting, communicating, escalating, resolving and closing is outlined below:

PROBLEM NATURE	VIA	RESPONSE TIME
1 Inquiries	Call/email	Within 30 minutes
2 Defective parts, devices replacement	Call or text/email	24 hours
3 Technical support will be provided 24/7		

- Signed Incident Report must be provided by the Winning Bidder and acknowledge by PICTO.

II. Technical Support

- Telephone access twenty four (24) hours a day, seven (7) days a week to Technical Support Hotline center of the Winning Bidder staffed by senior-level analysts for trouble shooting assistance of hardware issues;
- On-site dispatch of engineer and/or service parts to Customer’s business location (as necessary) for repairs and resolution necessary to remedy an incident;
- Telephone Support Requests:** Available twenty-four (24) hours a day, seven (7) days a week (including holidays).
- The Winning Bidder shall offer a three-tier escalation system to support customer’s technical or engineering requests. Depending on the nature of concern, escalations are performed in succession starting with Level 1 working through level 3.

Level	Contact Person	Contact Details
First (On call 24x7) – Helpdesk	Name:	Email Address Direct Line Mobile No.
Second (Unresolved within 24 hours) – Technical	Name:	Email Address Direct Line Mobile No.
Third (Unresolved within 48 hours) –	Name:	Email Address Direct Line Mobile No.

