



# BODY WORN CAMERA SOLUTION

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Information communication Technology  
Services

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## **1. BACKGROUND**

The Maldives Police Service (MPS) is the central police organization in Maldives and aims to make the Maldives a safe place for all. In 2019 the MPS introduced a new Strategic Plan with five priorities: (1) Organization Reform & Transformation; (2) Partnership for Policing; (3) Road & Maritime Policing; (4) Volume & High-Impact Crimes; and (5) Local Policing. These priorities are delivered through several projects. One of the key projects under this is digital transformation. Informed by the Digital Policing Strategy, the project aims to use most effective and efficient technology to improve accountability and public confidence towards the Maldives Police Service. A key component of this project is the introduction of Body Worn Camera (BWC) to MPS.

Maldives Police Service (MPS) initiated a body camera feasibility test in May 2019. The goal of the test was to evaluate camera hardware/software functionality and product/professional services. MPS have an established data network infrastructure throughout Maldives. The network will be utilized for the uploading and retrieval of video data centrally. MPS is looking of eligible and authorized parties to immediately provide 1400 BWCs to MPS as per the specifications provided with this Bidding Document

## 2. SCOPE OF PROJECT

MPS proposes to purchase, implement and support of wearable body cameras for MPS officers. Currently Maldives police service officers do not have a body worn camera solution. Body Worn Cameras are expected to bring several benefits and ease to the work police officers do daily. It will enable MPS officers to record both video and audio of their daily activities while on duty, and for the recordings to be preserved and accessed by designated personnel in the MPS. Body Worn Cameras will enhance the MPS ability to accurately capture events as they occur. It will contribute to officer safety and to improve transparency and accountability.

To this end, MPS is requesting proposals to immediately introduce and implement BWC to its frontline police officers throughout the Maldives. As such, the MPS seeks to procure 1400 BWC of which, 150 cameras must be LTE configurable. At least 850 of the total 1400 BWCs are required to have live GPS support. The livestreaming capability BWCs must have local unlimited data for LTE livestreaming, real-time GPS updated and real-time alerts. Vender should include the usage charges and LTE speed should not be throttled. The deployment will be throughout Maldives, Initial deployment from greater male region and expand to the rest of the Maldives. The supplier must provide free of cost initial training and implementation support to selected MPS officers in Maldives.

The self-contained cameras will be worn on Officer's uniform. BWC's must utilize a backend IP based retrieval system available to multiple users. The vendor should provide a warranty for the equipment including a comprehensive warranty for the BWCs as described in specifications in this RFP. Applicable maintenance, upgrades and repair services must be fully described including estimated frequency thereof, and detailed pricing. Vendor may submit alternative approaches if they believe their proposed system will meet or exceed the capabilities described below.

MPS desires to implement a best-practice process and solution that meets the business and technical requirements included within this document and corresponding attachments. The scope of work includes hardware and software.

The equipment supplied must be of new manufacture (not used or demo units), best quality, and installed in accordance with approved recommendations of the manufacturer thereof and must conform to the equipment specifications.

## 1.1 Camera

The body worn camera should:

- 1) Meet Military specifications or equivalent for the following:
  - a) Storage Temperature Range 20 degrees to 50 degrees
  - b) Vibration
  - c) Thermal Shock
  - d) Dust
  - e) Solar Radiation
2. be able to operate in temperatures between 25-40 degrees.
3. be able to withstand Drop Test rating of 6 feet.
4. be water-resistant to IPX Rating 4
5. Have flexible mounting options on the officer's uniform with a forward-facing field of view:
  - a. Chest
  - b. Point of view/head
6. Have minimum Video Recording Definition of 1080x720p (30FPS). All available definitions must be able to configure by the system admin.
7. Have Date and Time Stamp on video file
  - a. Be capable of recording the devices geo-location via GPS locator
8. be able to record at least 4 hours uninterrupted continuous recordings.
9. be able to store minimum of 8 hours of recorded video on board the camera.
  - a. Have encrypted, tamper-proof minimum 64GB of internal memory.
10. Have an operating battery life of at least 12 hours.
11. Have color video both at day and night.
12. Have a minimum field of view of 140 degrees.
13. Only be able to offload data via designated locations.
14. Have a noise canceling internal microphone.
15. Have a one touch recording activation button.
  - a. Have Mute Functionality

- b. any additional buttons must be configurable.
- 19. Have audio or visual or vibrating alert to confirm when it is turned off/on or recording.
- 20. Have safeguards to prevent accidentally turning it on or off.
- 21. Have enhanced image quality and low-light capability to mirror the human eye.
- 22. Have the ability to be activated automatically via Department defined cue (overhead lights, vehicle door opening, weapon draw, recording initiation of nearby camera etc.).
- 23. Allow for video categorization and sorting in the field via companion app, with no additional license.
- 24. Each Body Worn Camera Unit must have its own unique ID that can be registered to a specific Officer.

## **1.2 System**

The system should:

1. Capable of handling over 1400 User/Officer accounts.
2. Must be able to create individual user accounts with varying degrees of access.
  - i. Administrator accounts
  - ii. Basic user accounts
  - iii. Advanced supervisory user accounts
  - iv. Guest user or outside agency accounts
3. Record at a minimum HE-AAC (High-Efficiency Advance Audio Coding) Audio Format or MP4.
4. Allow officer to initiate video file transfer.
5. Allow officer to upload through docked video transfer via auto-upload to secured evidence database. Allow officer to upload through wireless video transfer via auto-upload to secured evidence database.
6. Be able to integrate with existing MPS operations module with API.
7. Be capable of categorizing a call for service or field activity categories automatically.
8. Be customizable to allow for the minimum number of days that a recording shall be retained in the system.

9. Have configurable 60 seconds of Pre/post-Event video buffering with audio.
10. Self-contained memory that cannot be modified or altered upon view.
  - a. Have solid-state memory Enhancement
11. Have access control that requires security permission for viewing and copying a video file.
12. Provide safeguards to ensure that the camera cannot record over or delete video files.
13. Digital media share outside agency with audit trail.
14. Be a secure and tamper-proof device.
15. Have standard software allowing for an officer to enter additional information to an existing video recording.
16. Ensure an unalterable chain-of-custody that records all access and activity of the system and video with time stamp.
17. Be customizable to allow for Department retention schedules.
18. Have import, export, share, and record etc. functions for supervisory users to manage and share digital evidence.
19. Include video editing software that will: Enhancement not mandatory.
  - a. Redact digital media.
  - b. Render segments of digital media.
  - c. Create event timelines and flags in digital media.
  - d. Redact documents (similar to PDF Professional editor).

### **1.3 Backend System**

Backend System should be capable of:

1. Automatic Video transfers from Body Worn Camera Unit into Local On-Site Storage Solution.
2. Automatic Video transfers must be performed via multi-charging/docking stations via
  - a. Be RJ45 Ethernet connection.

- b. USB/Multi-docking station software must have throttle control capability when connected to network so as to not overload network pipe and allow for seamless upload and charging of captured media and battery.
- c. Minimum 256bit AES Encryption in storage and transport.

### 3. Video Playback Backend System.

- a. Fast Forward and Rewind.
  - b. Fast Forward and Rewind Slow.
  - c. Advance forward and backward frame by frame.
  - d. Must have Video Screen Capture capability.
  - e. Must have Desktop Player compatibility with Windows Media Player, Quick Time, and VLC media player.
  - f. Must have the ability to digitally enhance a captured image/video without altering the original.
4. Video and audio to record and export in a standard, open, non-proprietary format, including both Codec and Container, such that it can be replayed in freely available software (e.g. VLC player) without processing conversion.

## **1.4 Proposed Storage Option should:**

- 1. Include management software allowing the MPS to digitally manage all uploaded evidence.
- 2. Allow for the sole ownership of digital media and associated entries to reside with the MPS.
- 3. Original captured media file must not be able to be deleted or altered upon capture and upload to Local Server Storage

## **2 TRAINING**

Vendor should:

- 1. Be prepared to offer ongoing training support for their product upon the procurement of BWC.
- 2. Ensure training is an appropriate blend of classroom instruction and hands-on practical training with the equipment to be used.



3. Ensure course content include the theory of device; the technical knowledge required for backend software operations and actual deployment
4. Supply all technical training materials and handouts in sufficient quantities to cover the training of identified persons.
5. Provide MPS defined, on-site user training, system migration and system installation.
7. Provided training to officers in such a manner that officers are competent in operating the recording device and backend systems.
9. For On-Site solutions provide training to System and Application Administrators in the management and maintenance of the backend systems
10. Provide evidence that the officer has completed training and is competent in operating the recording device and backend systems shall be maintained and turned over to MPS once completed.

## **2.1 Maintenance and Support**

Respondent must provide a plan for post- implementation maintenance and ongoing support of the Body Worn Camera

System and related equipment, including but not limited to: Body Worn Camera Unit, USB/Docking Station unit, servers, storage arrays, and back-up storage solution.

The plan should include details related to:

1. Delivery method for future upgrades and product enhancements, including frequency of upgrades.
2. Problem reporting and resolution procedures.
3. Thresholds for support limitations.
5. Bug fixes and patches.
6. Performance tunings and incremental enhancement.
7. On-site and on-line support.

The plan should also address details to:

1. Provide the MPS a 10 percent rolling stock for immediate replacement of inoperable units.

2. Provide telephone support (include toll-free support, hours of operation, availability of - at a minimum – 24X7 hotline, etc.).
3. Respond to all service calls within 24 hours.
4. Provide a replacement if a Body Worn Camera Unit and/or USB/Docking Station Unit or associated equipment become inoperative within 72 hours from the date that the equipment is deemed inoperable.
5. Minimum 3-year warranty with no questions asked policy.

### **3 REPLACEMENT PLANS**

Vendor must propose and supply a current and supported product and certify that it is not at end of life cycle.

Should equipment or technological upgrades become available during the course of the contract, the vendor must provide the MPS the upgrade to their equipment as a replacement to the contracted product. Only equipment and/or product models that have been satisfactorily demonstrated to the MPS and that have a demonstrated record of successful deployment by other law enforcement agencies, in similar sized cities will be used.

The Replacement plan must include details related to:

1. Replacement cycle of the entire system, including but not limited to:
  - a. Body worn camera.
  - b. Body worn camera accessories.
  - c. System associated accessories.
  - d. System docking stations.
  - e. System software and associated software.

#### **3.1 Service Levels**

Vendor must state their Service Level Agreements (SLAs) in the following areas

1. Site Availability (uptime with full functionality outside scheduled maintenance periods).
2. Maximum Scheduled Downtime.
3. Video Retrieval Time must be 5 seconds or less, 99.5% of the time.
4. Support Request Acknowledgement Time (time to acknowledge receipt of a support request).

5. Support Request Mean Time to Resolution.

## 4 REQUIREMENTS

- 1) Proposal based on the requirements.
- 2) The proposal must include detailed cost proposal information.
- 3) Provide costs estimates and options for on-premise solutions. Breakdown of fee schedule (yearly charges, extra charges, etc.) in Price Schedule.

## 5 SPECIFICATION

### 5.1 Camera

REQUIREMENTS	DETAILS
NUMBER OF CAMERA UNITS	<u>1400 units</u>
LTE CONNECTIVITY WITH REAL-TIME GPS UPDATES.	<u>150 of 1400 units</u> should support unlimited LTE livestreaming, real-time GPS updated and real-time alerts. Vender should include the usage charges and LTE speed should not be throttled.
GPS LIVE TRACKING	<u>*850 units</u> , of GPS live tracking and monitoring
CAMERA MOUNT	<u>Provide the specific type of mount of MPS choice. with 2 mounts per camera</u>
LIGHT WEIGHT DEVICE	Device should be light weight enough to be worn for extended periods of time without effort.
INGRESS PROTECTION(IP) RATING	IP67 rating or higher
MOUNTING OPTION	Different mounting options for all types of uniforms.
LIVE STREAMING	Live Stream audio and video while recording steaming over LTE connection (Local ISP)
BLUETOOTH	Bluetooth LE
BATTERY	Minimum 12 hours of operation. Rechargeable replaceable Lithium-ion, or Li-ion
PRE / POST EVENT RECORD	Configurable pre-recording buffer up to 120 seconds with audio.
DEVICE STORAGE CAPACITY	Minimum 64GB.
AUDIO & VIDEO	MP4 recording format, H264 Video Encoding

RESOLUTION	Minimum 1280x720p should be available with configurable settings
FRAME RATE	Configurable 30 frames per second or higher.
DAY / NIGHT OPERATION	Should be able to operate in both conditions. (> 0.1 LUX)
INDICATORS	Recording should be indicated to user. (lights, sounds or vibrations)
OPERATING MODES	Configurable. Normal and stealth mode of operation.
BUTTONS	Record button, additional configurable buttons if any.
DATA STORAGE	On premises data storage within MPS network infrastructure.
DATA OFFLOAD	Automatically data offload to on premises data storage via LTE, Wi-Fi or Dock in stations.
UPLOAD / CHARGING	When docked all data should be offloaded along with fast charging. (Minimum 6 hours to full charge)
GPS	Built in GPS. Record location in video.
EVENT TRIGGER RECORDING	Ability to trigger recording on nearby cameras.
ENCRYPTION	All data should be encrypted and tamper proof both on camera storage as well as on premises storage With AES encryption.
API INTEGRATION WITH OUR SYSTEM	Integration with MPS operations module. Technical support and integration according to MPS requirement.
MOBILE/COMPANION APP	Live view, description entering app for captured videos for the BWV users, without additional license requirement.
DOCKING STATIONS	Necessary docking stations for charging the cameras and transferring the data to local storage. Plus, additional 5% of total slots required
EVIDENCE MANAGEMENT SOFTWARE	Manage video footage system users and manage the wearable cameras.
AUDIT TRIAL, REDUCTION WATERMARK	Tamper proof audit trail for all the digital evidence ingested. Sensitive video reduction and Watermark
LICENSING	Include the license for device.
WARRANTY AND SUPPORT SERVICES	3-year comprehensive warranty for all equipment, devices and software included. The damage units should be replaced without additional cost.
INSTALLATION & CONFIGURATION	Installation integration and configuration of devices within MPS infrastructure.
TRAINING	Training MPS staff locally and overseas

## 5.2 Storage

#	Description	Qty
1	<b>HPE 3PAR 8200 Storage Hard Drive</b> <ul style="list-style-type: none"> <li>○ HPE 3PAR 8000 8TB SAS 7.2K LFF (3.5in) HDD with All-inclusive Single-system Software</li> <li>○ HPE 3Y Proactive Care 24x7 SVC</li> <li>○ HPE 3PAR 8000 8TB+SW 7.2K LFF HDD Supp</li> <li>○ HPE Startup 3PAR 8K Mlt Sys PM PP RC SVC</li> <li>○ HPE Startup 3PAR 8000 Fil Persona St SVC</li> </ul>	08 01 08 02 02
2	<b>Installation, Configuration and 3-Year Maintenance as the scope of works</b> <ul style="list-style-type: none"> <li>○ Installation and configuration of the array upgrade and present the upgrades to designated hosts</li> <li>○ Upgrade to latest release of 3PAR Inform OS software and confirm that the Inform OS version is at a supported and appropriate version</li> <li>○ Zoning and multi-path requirements based on the host Implementation</li> <li>○ Configuration and presentation of Virtual Volumes to all hosts</li> <li>○ Connectivity high-level mapping diagram and Sign-off documentation</li> <li>○ Configure File Persona</li> <li>○ Configure remote storage and replication with DR storage</li> <li>○ Including On-the-Job Training</li> <li>○ 3-Year Hardware Maintenance Support</li> </ul>	