



Ministry of Homeland Security, Labour and Technology

Republic of Maldives

CLARIFICATION - 1

Procurement of:

**Development and Implementation of a Fixed
Broadband Quality of Service (QoS) and Quality of
Experience (QoE) Monitoring System**

RFP No: *MV-MoECCT-DMADD-528841-GO-RFP*

Ministry of Homeland Security, Labour and Technology

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CLARIFICATION. 01

Procurement Name: **Development and Implementation of a Fixed Broadband Quality of Service (QoS) and Quality of Experience (QoE) Monitoring System**

RFP No: MV-MoECCT-DMADD-528841-GO-RFP

Project: Digital Maldives for Adaptation, Decentralization and Diversification (D'MADD) Project

Date: 27th August 2026

#	Query	Response
1	• Software architecture and meaning of "web-based" ○ We need to confirm that CAM would accept a unified software platform using different deployment modalities — Web, App and/or SDK — while maintaining the same centralized platform, methodology and data model. ○ We also need to clarify whether "web-based" refers to the management, configuration, analytics, and reporting platform, or whether CAM expects all measurement functions and protocols to run directly within a standard browser.	CAM is not requiring the measurement engine itself to be browser-based. The important requirement is that the overall solution has a centralized web-based management and reporting platform (platform independent), while measurement components may use Apps/SDKs or other appropriate deployment methods where technically necessary.
2	• Automated and unattended measurements ○ The RFP requires supervised and unattended operation. ○ We need to confirm that an installed software	CAM does not intend to restrict automated measurements to browser-based functionality. The testing approach has intentionally been kept open to allow proposers to provide recommendations based on their experience.





	application or SDK running on a general-purpose laptop, tablet, mini-PC or other portable device is acceptable for automated/background testing, particularly for functionalities that cannot technically be performed continuously from a standard browser.	CAM intends to use the solution primarily in two situations: ○ Testing in response to customer complaints; and ○ Broader monitoring and assessment through appropriate testing mechanisms (scheduled testing) The solution is not intended to be deployed at the ISP/operator end. Testing is expected to be conducted at the customer/user end.
3	• Passive testing ○ We need to clarify what CAM specifically means by passive testing. ○ Is the requirement limited to the passive collection of network, device, connectivity, and service-experience telemetry available to the software client, or does CAM expect inspection of traffic generated by third-party applications? ○ We also want to confirm whether passive testing is a mandatory compliance requirement, as it appears in the technical scope but not explicitly in the Pass/Fail criteria.	Passive testing refers to the collection and analysis of network, device, connectivity, and service-experience telemetry that can be obtained by the proposed solution without actively generating dedicated test traffic. Regarding compliance, passive testing should be considered part of the required technical scope in the RFP. The absence of separate Pass/Fail criterion does not mean that the requirement is excluded. In short, CAM expects passive telemetry/monitoring capabilities as part of the overall solution, but does not require inspection or interception of third-party application traffic as a mandatory feature.
4	• Protocol requirements ○ The RFP lists IPv4/IPv6, TCP/UDP, HTTP/HTTPS, FTP/FTPS, VoIP, RTSP and DNS. ○ We need to clarify whether every protocol requires a specific	CAM expects bidders to propose appropriate methodologies and measurement protocols based on internationally recognized standards as mentioned in RFP.





	dedicated QoS/QoE test or whether CAM is referring to general protocol support. ○ For VoIP and RTSP, we also need to understand the expected test methodology and KPIs.	
5	• Simultaneous voice, video and data testing ○ CAM requires simultaneous testing of voice, video and data. ○ We need to confirm whether these traffic types must run concurrently at exactly the same time, or whether a configurable multi-service test session executing different QoS/QoE tests within the same measurement cycle would be acceptable.	CAM's requirement is not intended to prescribe that all three traffic types must generate traffic at precisely the same millisecond. The key requirement is the ability to evaluate multi-service performance within a common measurement session, with sufficient flexibility to assess the impact of concurrent or sequential service usage.
6	• FTTH, FWA and Wi-Fi identification ○ We need to confirm whether the fixed access technology can be defined as campaign/location metadata when it cannot be automatically identified by the end-user device. ○ For Wi-Fi 6E and future Wi-Fi 7 compatibility, we also need to clarify whether CAM only expects the software to operate correctly over these technologies or also to identify and report detailed Wi-Fi PHY/radio information.	CAM requires the solution to support reliable testing across FTTH, FWA, and Wi-Fi access environments. Where the underlying access technology cannot be automatically identified by the end-user device, identification through test or campaign metadata will be acceptable. For Wi-Fi 6E and Wi-Fi 7, compatibility primarily means that the solution should be capable of performing the required QoS/QoE measurements over these technologies; detailed PHY/radio-level diagnostics are not required.





7	• Measurement servers and infrastructure ○ We need to understand whether CAM will provide measurement servers/test endpoints in the Maldives, or whether the Supplier is expected to provide and operate the complete infrastructure. ○ We also need to clarify: ▪ whether servers must be physically located in the Maldives ▪ whether direct interconnection with local ISPs is required; ▪ whether local and international endpoints can be combined; and ▪ whether a distributed/CDN-style architecture is acceptable.	• The required server infrastructure will be provided. • The successful bidder will be responsible for the required: ○ Configuration; and ○ Deployment of the solution. • Any additional infrastructure or resources required for the proposed testing methodology should be clearly identified by the bidder. • Local and international endpoints: CAM expects to test both local and international endpoints. • Distributed/CDN-style architecture: CAM would like to keep such approaches open to allow proposers to provide recommendations based on their experience as long as it meets RFP requirement.
8	• Cloud deployment and data residency ○ We need to confirm whether a Supplier-operated SaaS/cloud platform is acceptable and whether CAM has any specific requirements for data, metadata, analytics or backups to be hosted within the Maldives.	Yes, if the supplier is proposing a cloud-based solution. However, if the solution is 100% customized, then it should be hosted on premises in an environment provided by CAM. CAM will accept a SaaS/cloud-based platform, provided that it meets all requirements of the RFP regarding functionality, security, availability, data protection, access control, backup, and reporting. Data residency: CAM does not prescribe that all system data must necessarily be physically hosted within the Maldives, unless required by applicable Maldivian laws, regulations, or government data-





		security requirements. The bidder should clearly identify the proposed hosting location(s) and cloud infrastructure used. Data and metadata: The Supplier should ensure that all measurement data, user/account information, configuration data, metadata, analytics, logs, and other information generated through the solution are securely stored and accessible to CAM for the required monitoring and reporting purposes. Backup of data needs to be available to CAM at all times, but backup of application, if cloud-based needs to be proposed by the bidder. Regardless of whether the platform is hosted inside or outside Maldives, CAM should retain appropriate access to its data and reports, and the Supplier should not restrict CAM's ability to retrieve or export its data. Supplier must clearly disclose the hosting and backup locations and ensure compliance with applicable Maldivian laws, regulations, and CAM/government security and data-protection requirements.
9	• Licensing model ○ The RFP requires at least four perpetual, non-expiring client licences. ○ We need to clarify how CAM expects this requirement to apply to a SaaS platform, particularly regarding the centralized platform, hosting, maintenance, upgrades and measurement infrastructure. ○ How many tests could be done by month?	CAM requires at least four perpetual client licences and expects the proposed solution to support ongoing testing without an arbitrary monthly test limitation. Bidders should specify the maximum or recommended testing capacity of their proposed solution and clearly identify any licensing or infrastructure constraints or scalability. <i>Also, if the proposed solution is cloud-based, provide the required cloud license for at least one year.</i>
10	• Intellectual Property and source code ○ We would propose our existing commercial and	Intellectual Property and Source Code CAM may accept a bidder's existing proprietary commercial software and technology, with the bidder retaining





	proprietary technology. All Intellectual Property Rights must remain exclusively with us, including our measurement engines, source/object code, SDKs, libraries, algorithms, APIs, methodologies, analytics components, platform modules and know-how. ○ In addition, we will not provide, disclose or transfer the proprietary source code to CAM or any third party. ○ As the RFP includes provisions regarding delivery of code for customized components and expresses a preference for open-source components, we need explicit clarification from CAM: ▪ Can CAM confirm that a bidder may propose an existing proprietary commercial software solution where all Intellectual Property Rights remain exclusively with the Supplier and where the Supplier is not required to disclose, deliver, license or transfer the source code of its proprietary technology? ▪ We also want to confirm that	ownership of its pre-existing Intellectual Property Rights, including proprietary measurement engines, source code, SDKs, libraries, algorithms, APIs, platforms, methodologies, and know-how. However, this is subject to the following: • The Supplier's pre-existing/background IP will remain the property of the Supplier, and CAM does not intend to require disclosure or transfer of proprietary source code forming part of an existing commercial product. • The Supplier should provide CAM with the necessary rights, licences, access, documentation, interfaces, and technical information required for CAM to use, operate, administer, monitor, and maintain the procured solution for the purposes of the project. • Project-specific configurations, integrations, and adaptations that are implemented using the Supplier's existing proprietary technology would not, by themselves, require transfer of the Supplier's underlying proprietary source code or background IP. • However, where the Supplier develops new bespoke/custom software or source code specifically for CAM under the contract, the applicable RFP/contract provisions concerning ownership, licensing, delivery of customized components, or source-code requirements would apply. The bidder should clearly distinguish between pre-existing proprietary IP and newly developed project-specific deliverables in its proposal. • The preference for open-source components does not mean that CAM requires the entire proposed solution to be open source. Bidders may propose proprietary
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	project-specific configurations, adaptations or integrations using our existing technology would not trigger any IP transfer or source-code delivery obligation.	commercial components, provided that the proposed licensing model does not prevent CAM from obtaining the required functionality and contractual rights. Any third-party or open-source components incorporated into the solution should be clearly identified, together with their applicable licensing terms and restrictions. In short, CAM can accept an existing proprietary commercial solution without requiring transfer of its underlying source code or background IP. However, the Supplier must clearly identify its background IP, third-party components, and any newly developed/custom components, and comply with the RFP/contract requirements applicable to project-specific deliverables.
11	Service availability - CAM refers to network/service availability as one of the measurement parameters. - We need to clarify whether, under a software-agent model, availability can be calculated based on scheduled recurring measurements over a defined observation period, rather than requiring a permanently active measurement point.	CAM does not require a permanently active testing of network availability. A software-agent-based scheduled measurement approach is acceptable, provided it can generate reliable, auditable, and representative availability results.

