



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
Ministry of Road Transport and Bridges
Road Transport and Highways Division
Roads and Highways Department
Road Design and Safety Circle

REQUEST FOR PROPOSAL (NATIONAL)

**Selection of National Consultant for Operation of
Traffic Management Center (TMC) Under "Improving
the Reliability and Safety on National Highways
Corridors of Bangladesh by Introduction of Intelligent
Transport Systems (ITS)"**

(Package no. PS-1)

(Time based)

**Invitation for Proposal No: 02/RHD/SE/RDSC/2022-
2023**

Issued on: 01-02-2024

Proposal Package No: PS-1

Section 6. Terms of Reference (TOR)

Terms of Reference (ToR)

for

Consultant for Operation of Traffic Management Center (TMC) Under "Improving the Reliability and Safety on National Highways Corridors of Bangladesh by Introduction of Intelligent Transport Systems (ITS)"

1. Background

Korea International Cooperation Agency (KOICA) of Republic of Korea and Roads & Highways Department of the People's Republic of Bangladesh (RHD) initiate a project "Improving the reliability and safety on National Highways Corridors of Bangladesh by introduction of Intelligent Transportation System (ITS)". Under the ITS system, a pilot project is being implemented along the N8 route (zero point of N8 to approach of Padma Bridge) with an approximate distance 38 km. in an additional 12km (passing through city corporation area) fiber optic will be connected the zero point of N8 with RHD headquarter where a Traffic Management Centre (TMC) will be established for the entire operation.

Traffic Management Center will play a key role for highway monitoring and operations. Engineers, radio operators and other staff will monitor the real-time data from traffic detectors on the highways, identify the problems and generate report with various devices. Moreover, TMC will coordinate with other law enforcement and emergency response agencies whenever required.

KOICA and RHD will arrange necessary Training for the personnel to operate and maintain the TMC, Fiber Optic and the Field devices installed in the routes. RHD took an initiative to outsource the operation and maintenance services of its Installations.

2. Objective

The Consulting firm will provide Management and engineer-level Staff for onsite support in the TMC and managing field devices during working hours and additional overtime and / or manpower when needed. The staff will consist of Manager/ICT engineers/Field Technicians with good communication and technical skills, coupled with industry certification and substantive experiences in providing first line support in installation, configuration, troubleshooting and maintenance.

The List of Manning is described below -

Sl.	Job Title	No.	Job Nature
1	Traffic Management Chief	1	Office
2	Traffic Operation Chief	1	Office
3	Operator	8	Office
4	Analysist	1	Office

Sl.	Job Title	No.	Job Nature
5	Chief Maintenance Engineer	1	Office - Field
6	S/W Engineer	1	Office
7	Electrical Engineer	1	Office - Field
8	Technicians (Field equipment and Fiber Optics)	2	Field - Office
Sub-Total		16	

3. Main Tasks and Responsibilities of the Consultant

1. Ensure safety and security of all computerized data, information, files and documents.
2. Indexing the ports in/outlets in the server room, keep ICT equipment, storage area and work area clean and organized including other accessories.
3. Administer and maintain TMC servers (Mail, Active Directory, and others), periodically updating software and configurations as well as the copies of the systems and databases. Switching and Transmission Equipment, Field Devices, Fiber.Optic operation.
4. Ensure full operation of network utility procedure (Active Directory Administration) & security attributes, establishing directories, drive-mapping, configuring network printer & providing user access.
5. Train staff on the use of the office intranet, network sharing and help them to archive official documents/emails, and support in the implementation of the electronic archive of all documents.
6. Troubleshoot and monitor network problems: File Server Traffic, usage and performance, network security access and space usage. Follow up with staff for corrective measures.
7. Administration of antivirus server: Virus detection, removal and prevention for all systems. Ensure periodic anti-virus update anti-virus protection and other required software for the information system in the Country office is done.
8. Maintain documentation of processes, procedures and troubleshooting guides including tracking vendor service requests through completion
9. Notify RHD in writing within a maximum of 24 hours in case it's unable to respect a contractual stipulation indicating reasons.
10. Test and verify newly purchased ICT equipment against approved quotations received from suppliers and confirm the purchased equipment are as per approved quotation
11. Perform regular site visits to assess the status of Field Devices and peripherals and fix any arising incidents and provide reports thereof.

4. DELIVERABLES

- Properly functioning, secure and efficient network, servers, field devices and Fiber Optic operation.
- Fully installed and properly functioning Monitoring systems, and accessories
- An efficient software applications and antivirus software on the network
- Optimized network infrastructure, datacenter and ICT management aligned with corporate standards
- Good working condition of systems, hardware, and equipment maintained

Handwritten signature

Handwritten mark

- Comprehensive handover notes with clear recommendations for further/future improvements
- Satisfactory user support
- Generate frequent report as per instruction of employer.

5. Requirements for the firm

- Legally registered organization with requisite professional experience and knowledge of Network technologies including Microsoft Windows, corporate ICT security and viral protection systems, Communication devices, PC/LAN operating systems and peripheral devices.
- Knowledge of ability to perform a variety of standard specialized and non-specialized tasks and work processes that are fully documented, researched, recorded and reported.
- Ability to review a variety of data, identify and adjust discrepancies, identify and resolve IT operational problems.
- Ability to manage work of a confidential nature and handle large volumes of work
- Should possess experience of client support, such as, a Help Desk or User Support Unit
- Planning and Delivering results
- Willingness to take ownership of issue analysis and resolution efforts and committing to “doing what it takes” to resolve technical issues regardless of effort or time required
- The firm shall have local presence, on the ground to handle emerging issues.

6. The firm must have IT support personnel with the following qualifications

Division	Position	Qualification	Roles
Overall management center	Traffic Management Chief	Master Degree in Transport engineering or Electronics or Information technology Minimum 10 years of Professional experience Minimum 5 years of experience in the Traffic Management project	<ul style="list-style-type: none"> ▪ Responsible for Overall management of ITS and Transport ▪ Monitoring all contents of systems ▪ Instruct operators whenever it require
Operation of ITS	Traffic Operation Chief	Graduate in Transport engineering. Minimum 5 years of Professional experience Minimum 3 years of experience in the Traffic Management project	<ul style="list-style-type: none"> ▪ Responsible for Overall management of ITS and Transport ▪ Monitoring all contents of systems ▪ Instruct operators whenever it require
Operation and monitoring center	Operator	Minimum 2 years of experience in the traffic management and monitoring works Preferred to have IT experiences for	<ul style="list-style-type: none"> ▪ Monitoring of center operation and road situations ▪ Handling and response to accidents, dissemination and

Division	Position	Qualification	Roles
		controlling ITS facilities	<p>report on situation.</p> <ul style="list-style-type: none"> Operation and monitoring of center system/Control of CCTV and VMS, and alleviation of congestion. Operation of web/app for traffic information, and handle complaints.
Planning and management of ITS standardization, data analysis	Analysist	<p>Graduate in Transport engineering or information technology</p> <p>Minimum 3 years of experience in the Traffic Management project</p> <p>Minimum 2 years of experience of Traffic Data analysis works</p>	<ul style="list-style-type: none"> Planning and management of ITS standardization including standard node link, etc. Quality management and verification of traffic data statistics. Analysis of public traffic services, and traffic forecasts. Analysis of traffic accident data, and improvement of safety Analysis of congestions and detours, and improvement of traffic flow.
Maintenance of ITS	Chief Maintenance Engineer	<p>Graduate in Electronics or information technology</p> <p>Minimum 5 years of Professional experience</p> <p>Minimum 3 years of experience in the maintenance of electronic and electrical devices</p>	<ul style="list-style-type: none"> Responsible for overall maintenance of ITS
TMC	S/W Engineer	<p>Graduate in information technology or Computer science</p> <p>Minimum 3 years of Professional experience in S/W division</p> <p>Minimum 2 years of experience in the maintenance of S/W</p>	<ul style="list-style-type: none"> System security management and backup management Management of systems linked among the centers, and management of DB Management of system (web/app) for

Division	Position	Qualification	Roles
		development and Maintenance	provision of service for the public. ▪ Improvement of system performance
	Electrical Engineer	Graduate in Electronics and Electrical Engineering Minimum 2 years of experience in the maintenance of electronic and electrical devices	▪ System inspection and failure recovery ▪ (H/W, Network)
Field equipment	Technicians (Field equipment)	Minimum 2 years of experience in the maintenance of electronic and electrical devices	▪ Inspection and failure recovery of field facilities (CCTV, VMS, VDS, etc.) ▪ Maintenance of communication network and network. ▪ Management of performance and security of different equipment ▪ Improvement of system performance

7. Confidentiality

The Consultants and subsequently its employees to sign a Confidential / Non-disclosure Agreement for maintaining all the information security Policy prescribed by the Client.

8. Time frame and Location

- The services provided by the contractor shall be on-call basis, 24/7 and may be delivered by electronic mail, both written and spoken.
- Total duration of the contract is approximately 3 years, renewable further upon satisfactory performance and Client's need.
- The main service site shall be at Roads and Highways Department, Tejgaon.

9. Transfer of Knowledge (training)

Providing training for Capacity enhancement of RHD officials on ICT Support Services regarding the output and report produced by the consultant's team. The extent, duration, time and place of the training shall be decided by the client.

10. Other Issues

For all other issues that will be raised during the implementation of this project not covered in the Terms of Reference (ToR) the decision will be taken by the client.

[Handwritten signature]

[Handwritten mark]