



Bangladesh Telecommunication Regulatory Commission  
Plot#E-5/A, Agargaon Administrative Area  
Sher-e-Bangla Nagar, Dhaka.  
www.btrc.gov.bd

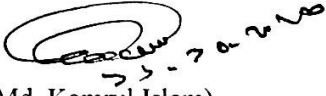


Administration Division

**Request for Expression of Interest**

<b>GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH</b>		
1	Ministry/Division	Post and Telecommunications Division
2	Agency	Bangladesh Telecommunication Regulatory Commission (BTRC)
3	Name of Procurement Entity	Director, Administration Division, BTRC
4	Procurement Entity Code	Not Applicable
5	Procurement Entity District	Dhaka
6	Expression of Interest for	Selection of consulting firm for Upgrade and maintenance the existing NOC Automation and IMEI Database (NAID) System for BTRC.
7	EOI Ref No	14.32.0000.400.07.004.23.1352
8	Date (dd/mm/yyyy)	16-10-2023
<b>KEY INFORMATION</b>		
9	Procurement Method	Quality and Cost Based Selection (QCBS)
<b>FUNDING INFORMATION</b>		
10	Budget and Source of Funds	GoB
11	Development Partner (if Applicable)	Not Applicable
<b>PARTICULAR INFORMATION</b>		
12	Project/Programme Code/(if Applicable)	Not Applicable
13	Project/Programme Name/(if Applicable)	Not Applicable
14	EOI Submission Location	BTRC, Level-10, Plot#E-5/A, Agargaon Administrative Area, Sher-e-Bangla Nagar, Dhaka.
15	EOI Closing Date & Time	01-11-2023; 02:00PM
<b>INFORMATION FOR APPLICANT</b>		
16	Brief Description of the Assignment	The objective of this assignment is to upgrade and maintenance the existing NAID System so that all existing services of NAID System can perform smoothly. System should have the capability to sync IMEI database with the NEIR system in real time and process all the integrated system (especially NEIR) request and send feedback in real time.
17	Experience, Resources & Delivery Capacity Required	<ol style="list-style-type: none"><li>1. Must submit valid Trade License, TIN Certificate, VAT Registration Certificate, Certificate of Incorporation &amp; updated income tax Certificate.</li><li>2. Must be a local company of having minimum <b>eight (8)</b> years of experience in Software development business in Bangladesh.</li><li>3. <b>The firm must have BASIS membership certificate.</b></li><li>4. At least <b>five (5)</b> software implementation experience in International or Government Organization. The firm must have experience of managing at least <b>five (5)</b> web-based applications with GoB or with large scale corporate sector.</li><li>5. The firm shall have experience on delivery and support large-scale software application in government entities.</li><li>6. The firm should submit a brief description of the firm's organization and outline of recent experience.</li><li>7. The firm shall provide <b>three (03) years'</b> service maintenance</li></ol>

		and technical support. After that period, BTRC may extend the annual maintenance contract (AMC).			
		8. The firm has to be pure Bangladeshi by registration and by 100% ownership. All updated documents (Memorandum of Association & Article of Association etc.) received from the office of Registrar of Joint Stock Companies and Firms should be submitted.			
18	Other Details (if applicable)	Detailed TOR and other relevant information are available at BTRC website ( <a href="http://www.btrc.gov.bd">www.btrc.gov.bd</a> ).			
19	Association with foreign firms is	Not Encouraged			
	Ref No	Phasing of Services	Location	Indicative Start Data	Indicative Completion Date
20	14.32.0000.400.07.004.23.1352	Single	Dhaka	From contract award	90 (Ninety) Days
<b>PROCURING ENTITY DETAILS</b>					
21	Name of the Official Inviting EOI	Md. Kamrul Islam			
22	Designation of the Official Inviting EOI	Director, Administration Division			
23	Address of the Official Inviting EOI	Plot#E-5/A, Agargaon Administrative Area, Sher-e-Bangla Nagar, Dhaka.			
24	Contact Details of the Official Inviting EOI	Tel.- +880222217000 (Ext.- 212) E-mail:- kamrul_islam@btrc.gov.bd			
25	The Procurement entity reserves the right to accepts or rejects all EOI.				

  
 (Md. Kamrul Islam)  
 Director  
 Administration Division, BTRC  
 Tel- +880222217000 (Ext.-212)  
 E-mail:- kamrul\_islam@btrc.gov.bd



# Bangladesh Telecommunication Regulatory Commission

5-7th Floor, IEB Bhaban, Ramna, Dhaka-1000.

Draft Technical Specification

For

Upgradation and Maintenance of NOC Automation and IMEI Database (NAID) System

## Background

Bangladesh Telecommunication Regulatory Commission (BTRC) has a system named NOC Automation and IMEI Database (NAID) to facilitate legal import of mobile phones, local production of mobile phones and storage of IMEI numbers. With the introduction of NAID system, all authorized importers and local manufacturers in Bangladesh can apply for no-objection certificates through this system and receive the no-objection certificate for importing, manufacturing and/or marketing in a short period of time. The main objective is to prevent inflow of illegal phones to the local market and eventually increase the sector's revenue as well as prevent phone thefts in the country. This is also an important input database for National Equipment Identity Register (NEIR) system.

NAID system is an online facility mechanism that seeks to bring relevant registered members together, coordinated and streamlined, to provide efficient and transparent services to applicant. The purpose of NAID system is to provide applicant with a single place for applying for and obtaining necessary approvals relevant to mobile phone importing/manufacturing.

As part of the NAID system, BTRC has been maintaining an IMEI database of all mobile phones that have been imported/manufactured legally since January, 2018. Apart from IMEI numbers, this database also stores relevant and important attributes of mobile devices such as device name, model, device image, supported frequency bands etc.

Considering the development of mobile phone industry of Bangladesh and the demand for quick-response by NEIR system, capacity of the NAID system needs to be increased. With this view, BTRC plans to enhance and upgrade NAID system basing on the requirement of ensuring seamless integration with NEIR system.

## Objectives of the Assignment

The objective of this assignment is to upgrade and maintain the existing NAID System so that all existing services of NAID System can perform smoothly. System should have the capability to sync IMEI database with the NEIR system in real time and process all the integrated system (especially NEIR) request and send feedback in real time.

## Brief description of the assignment:

The consulting services includes:

- Study the existing procedure of the various stages of work of related to NOC process in BTRC and document it with AS-IS workflow diagrams and get acceptance of BTRC.
- Apply process re-engineering wherever possible and propose TO-BE workflow diagrams. Obtain a user acceptance on the TO-BE workflow diagrams from the BTRC.
- Prepare Software Requirement Specifications (SRS) or Functional Specifications (FS)

- document and Software Design Document (SDD) for the computerized web-based system and submit the same along with workflow diagrams.
- d. Arrangements should be made to send notification of expiry of Enlistment Certificate to customer/company and concerned departments.
  - e. There should be a departmental mechanism for cancellation of NOC on the application of the company or as per the decision of the Commission.
  - f. NOC can be processed through this management system along with the e-document system. It should be ensured that there is no disruption in the functioning of this management system even if there is a problem with e-nothi due to technical problems.
  - g. There will be provision for rectification/alteration/amendment of NOC.
  - h. Role based user management.
  - i. NOC category wise required list of documents configuration.
  - j. As per Commission decision new Software Module may be added in the NAID system.

### Technology Platform:

#### Web application

- The application which is a web-based solution, has to be hosted in a centralized Web-server
- The application should be developed following Service Oriented Architecture (SOA)
- Application should support MVC framework.
- Considering the operating/client environment at different level of this application, it should be developed in such a way so that it requires low bandwidth to run.
- The web-based application should support cross browser platforms (popular web-browsers such Mozilla Firefox, Opera, Chrome, Internet Explorer, Safari etc.)
- Should have ability to seamless integration with future module/ components/applications
- Application should be lightweight and rich client-side scripting
- UI should be developed based on the analysis of UX.
- Any web interface of this application should be fully responsive

#### Hosting and deployment

The application database will be hosted on an online server of National Data Center of Bangladesh.

#### Minimum technical experience of the Consulting Firm:

- i. Must be a local company of having minimum **eight (8)** years of experience in Software development business in Bangladesh.
- ii. **The firm must have BASIS membership certificate.**
- iii. At least **five (5)** software implementation experience in International or Government Organization. The firm must have experience of managing at least **five (5)** web-based applications with GoB or with large scale corporate sector.
- iv. The firm shall have experience on delivery and support large-scale software application in government entities.
- v. The firm should submit a brief description of the firm's organization and outline of recent experience.
- vi. The firm shall provide **three (03) years'** service maintenance and technical support. After that period, BTRC may extend the annual maintenance contract (AMC).
- vii. The firm has to be pure Bangladeshi by registration and by 100% ownership. All updated documents (Memorandum of Association & Article of Association etc) received from the office of Registrar of Joint Stock Companies and Firms should be submitted.





### Staff Requirements:

The assignment is expected to be carried out by a team of experts in an integrated manner. The staffing requirements of key personnel may include following positions described in this section. BTRC and the Consulting Firm can propose any modification with appropriate justification. To achieve the objectives of consultant services under this Terms of Reference and in accordance with the scope of works as stated, the requirement of following professional staffs estimated for the proposed assignment:

#### Key staffs:

SL	Resource Type	Resource unit
1	Project Manager	1
2	Business Analyst	1
3	System Analyst	1
4	Software Architect	1
5	Database Administrator	1
6	Security Expert	1
7	Sr. Programmer	1
7	Programmer	3
8	UI/UX Designer	2
9	QA Engineer	1
10	Technical Document Writer	1
11	Technical Assistant	1
Total		15

#### Duration of Engagement

The duration of the consultancy is 03 months from the signing of the contract.

#### Reporting Requirements

All reports will be prepared in the English language and provided in hard copies and in electronic format. All data and applications developed in the context of this assignment will be provided to BTRC in open electronic format and will be the property of the BTRC/Government. Consulting Firm should deploy required teams where or when necessary, at the time of execution of the tasks of the assignment.

Deliverables/Outputs	Timeline
1. Inception Report	Within 10 days of commencement
2. Monthly Report	Within the 10th date of the next month
3. Final Report	1 week before contract expiration

#### Facilities and Equipment

##### To be provided by the Consulting firm:

During the study, the consulting firm shall provide all the facilities for their staff and other logistical requirements (like workstations, transportation to BTRC office) on their own to fulfill their obligations. The consulting firm shall propose a phase wise requirements of their individual



consultants in the technical proposal and provide the financial cost estimates for these in their financial proposal.

### To be provided by the Government:

The procuring entity (BTRC) will arrange the seating arrangements of the consultants at the BTRC office premise. BTRC will provide the printing facilities with required papers to print for the assignment.

### Payment Terms

- Ten (10) percent of the lump-sum amount shall be paid upon submission of the inception report and contract implementation plan.
- Twenty (20) percent of the lump-sum amount shall be paid upon submission of the interim report and approval of system/software requirements specifications (SRS).
- Twenty (20) percent of the lump-sum amount shall be paid upon User Acceptance Test (UAT) of system/software and debugging/fine-tuning to comply with SRS submission of the draft final report.
- Twenty (20) percent of the lump-sum amount shall be paid upon Operational Acceptance Test (OAT) of system/software for successful test run with real data, user training and any additional fine-tuning required for live operation approval of the final report.
- Thirty (30) percent of the lump-sum amount shall be paid upon submission of all design documents, user manual, training manual, system administration manual and any other documents or source code as per TOR and formal commissioning of the system/software.

### Taxation

The consulting firm shall be fully responsible for all taxes imposed by Government of Bangladesh. The firm must be registered in VAT.

### Integration

Currently NAID system has been integrated with the following Systems. Existing integration should be enhanced to transfer data in real time as required:

Sl.	Integration Items	Functional Features
1.	NEIR	Integration with NEIR System to sync IMEI database in real time.
2.	Registered Govt. Stakeholders (LEA, NBR)	Relevant and approved Govt. Stakeholders will be integrated with this system to get the beneficiary data whenever necessary.
3	Mobile Phone Operator (MNO)	Integration with MNO to support MNO subscriber's handset validation request.
4.	Digital e-nothi System	NAID system should be integrated with the digital e-nothi system launched by the government. So that it is possible to send draft NOC to e-nothi for approval.

		Later, there should be provision for the approved NOC from the e-nothi to be issued to the concerned users.
5.	SMS/e-mail	Integration with SMS/e-mail to get the notification regarding registration, approval, billing, payment etc.

### Existing Hardware of Current NAID System

Sl	Hardware Name	Specification	Number of H/W	Comments
01	Web Server	Dell PowerEdge R640 Motherboard – 1338- BLUW Intel Xeon Gold 5118 2.3G, 12C/24T, 10.4GT/s, 16M Cache, Turbo	02	Operational
02	Database Server (DC-DR site)	Dell PowerEdge R640 Motherboard – 1338- BLUW Intel Xeon Gold 5118 2.3G, 12C/24T, 10.4GT/s, 16M Cache, Turbo	02+01	Operational
03	Firewall (DC-DR site)	Cisco Firepower 2110-NGFW-K9	02+01	Operational
04	Ethernet Switch (L2, 24 Ports, 1Gbps)	Cisco WS-2960X-24TS-L	03	Operational
05	Rack with KVM Switch+TFT with Keyboard, Video and Mouse	42U, 1000d/800w steel perforated both front & rear door (Toten)	02	Operational
06	SAN Storage	Dell PowerVault MD3420	02	Operational
07	UPS (10 KVA)	Vertiv(Emerson) GXT MT+ 10KVA	01	Operational
08	UPS (03 KVA)	Vertiv(Emerson) GXT MT+ 3KVA	01	Operational
09	Generator (20 KVA)	Casper Power CP-W20	01	Operational
10	Air-Conditioner (2.0 TON)	Carrier Spilt Wall type AC/2.0 TON	02	Operational
11	Air-Conditioner (1.5 TON)	Carrier Spilt Wall type AC/1.5 TON	02	Operational
12	AC timer	AC Timer to Control Air Conditioner	02	Operational
13	Laptop	HP 15-BS120TU: Intel Core i5 8250U, 8 <sup>th</sup> Gen, RAM: 4+4GB, HDD: 1 TB	01	Operational
14	SSL Certification	Geotrust	02	Operational
15	Other Installation Accessories		01	Operational
16	Installation & Configuration of Hardware, OS and Database	OS: CentOS, Open Source DB: MariaDB, Open Source	01	Operational
17	Source Code	Source code of existing NAID System	01 set	Operational

The following Hardware will be required in this upgradation, subject to reuse of existing hardware and software of NAID System:

### Hardware Requirements

The minimum hardware that is required for the system is listed below or equivalent: