



## **Universal Service Fund**

(A company setup under Section 42 of the Companies Ordinance 1984)

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### **MONITORING AUDITOR TERMS OF REFERENCE**

#### **Monitoring Services for USF RTeS/BSD/NG BSD Projects (Prequalification for MA Panel)**

**Project Reference: USF/MA Panel/2024/01**

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## Part 1: Context and Purpose of Monitoring Auditor Services

1. In line with USF rules, USF will enter into Service & Subsidy Agreements (SSAs) with Service Providers (SPs) for the provision of telecommunications services in un-served and under-served areas of Pakistan (known as USF areas).
2. A “Monitoring Auditor” (MA) appointed by USF shall be responsible for monitoring technical performance of already installed network and making related determinations i.e. certifying whether or not USF SP is complying with standards mentioned in the SSA
3. USF intends to enter into agreements for engagement of Monitoring Auditors (MA) for monitoring of various lots. The MA shall perform monitoring audits in areas for which their services are contracted.
4. Functions to be performed by the MA as under:
  - (a) *Verification of USF Voice and Data Services with given quality of service, as defined in Schedules A & B of SSA in USF Areas consisting of underserved and unserved mauzas/highways/motorways etc. as defined in Schedule C of the SSA*
  - (b) *Carry out field monitoring of Telecom Networks which includes the following:*
    - (i) *Inspection/testing of Radio Access Network, Radio and Optical Backhaul network.*
    - (ii) *Inspection of BSS, Transmission, Civil and Power sections of the BTS site as per standards including testing of environmental external alarms.*
    - (iii) *Drive Test for Mauza Coverage and Quality of Service and Impact Assessment as per standards defined in SSA and its schedules.*
    - (iv) *The MA will submit a monitoring report including network and services performance in the area to be monitored. Drive test results, physical infrastructure, and network performance KPIs shall be included in the report. These reports shall reflect that the USF*

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*Service Provider has met required obligations per the SSA & its schedules.*

- (v) *Issuing an indication in writing to USF and highlight any shortcomings or snags, with their impact.*
5. Responsibilities of MA also include identification of snags, which shall be forwarded to SP for rectification. Once intimation by SP is received regarding snag rectification, the MA will have to re-visit the relevant site/mauza/ highway section to verify status of identified snag(s), within 7 days of USF go ahead for re-visit. If the identified critical/service affecting snags are still open during revisit or if the SP has not intimated about their rectification after Twenty (20) calendar days of initial intimation, USF shall take it up with SP for resolution in line with SSA provisions
  6. The responsibility of MA shall be considered complete provided all other deliverables on part of MA have been met. Completion certificate shall be issued to MA and the monitoring audit task shall be considered accomplished on issuance of “Completion Certificate” by USF
  7. USF has the right to inspect the monitoring activity performed by MA, by taking to the field if necessary.
  8. Performance of the MA Services will require a high degree of expertise in evaluation & optimization of network implementation and telecommunications service delivery. It will also require substantial and sustained local presence.
  9. Further information regarding the bidding process and related documentation is available **e-Pak Acquisition & Disposal System (e-PADS)**.

## **Part 2: Description of Monitoring Auditor Tasks**

The MA shall undertake the following tasks:

### ***Task 1. Verification of Network***

1. Assess the USF sites included in monitoring visit, as per monitoring methodology, this will include Solar System, DG, Battery Bank, Rectifier, Commercial Power, Civil, BSS, Transmission and fiber nodes (if applicable)
2. Perform tests using standard tools. Tests include visit to USF sites to ascertain BSS (BTS & Transmission) functionality, earthing values, solar power, and BBS. In case of any shortcomings, the MA will intimate USF in a timely manner and include all findings and shortcomings in the report. Details of tests to be performed are described in Annex A.
3. All installed BoQ will be photographed and will be listed in report, which includes Civil, BSS, Power and Transmission. A short film (1-2 minutes) which covers all site location including entrance, Site name plate, Site surroundings and installed equipment,
4. The detail of team (Name, designation, Contact details) performing the monitoring audit activity shall be provided to USF.
5. All snapshots and videos shall be Geo Tagged, mentioned Date, Time and coordinates.
6. Time stamp picture of complete visiting team of MA, on every site.

### ***Task 2. Verification of Network Services & Impact Assessment***

MA shall verify USF Network Services in USF Areas in accordance with the Monitoring Methodology. Unless otherwise noted, Monitoring activities must be completed and its respective monitoring audit report along with all annexures and deliverables, must be submitted within 45 calendar days of the signing date of the contract.

The MA shall conduct monitoring audit and evaluate USF Network Services as per Service requirements specified in Monitoring methodology.

- (a) Drive Test for Mauza Coverage and Quality of Service. Report observations and major and minor Snags. Details of KPI's to be evaluated are mentioned in Annex B.
- (b) For all tests and measurements, the MA will use dedicated & licensed equipment/tools in the form of hardware, associated licensed software,

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probes etc. to ensure accuracy of the results and their acceptability by USF and SP. The list of tools shall be provided to USF.

- (c) MA shall perform impact assessment by filling face-to-face Impact Assessment Questionnaire one (01) per mauza with at least three (03) videos during monitoring activity. Please refer to Methodology in Monitoring Methodology folder.

## **Part 3: Deliverables**

Based on the tasks described above, the MA will deliver to USF the following:

1. Comprehensive Monitoring report based on monitoring methodology to be submitted to CO(QAM), along with all the annexures, within (45) forty-five calendar days after contract signing upon completion of monitoring visit, mentioning all inventory detail, observations and BSS, Transmission, RF DT (coverage), civil, electrical snags categorized as critical (traffic/coverage disturbing), major (inventory related) and minor.
2. Softcopy and hardcopy in colored print of snag verification witness report (addendum report (if applicable)).
3. Softcopy of mauza DT reports
4. Softcopy of BSS checklist.
5. Geo-tagged with time stamp snapshots/videos.
6. DT Logs files (primary activity and snag verification activity).
7. FM documents, if any.
8. Commercial invoice.
9. Sales Tax invoice.
10. Filled Impact Assessment Surveys Questionnaire Forms (Soft copy)
11. Chapter on Impact Assessment in Monitoring Field Report.
12. Certification that the USF SP has maintained the Service Quality criteria of USF Network and availability of USF services in USF areas as per its SSA obligations.
13. In case of any dispute, assist USF in consultations with the SP, including any dispute resolution processes. MA will be required to clarify/defend his findings.

## Performance Evaluation

Performance evaluation for MA will be done as per below table which will be shared within all stakeholders on annual basis.

Performance Evaluation Criteria		
S/No	Description	Weight
1	<b>Field Coordination</b>	40
	Compliance guidelines communicated by USF during Project Kick-off (10)	
	Field Coordination with Service Provider (10)	
	Timely escalation of field issues to USF (10)	
	Monitoring Audit Field team expertise and performance (10)	
2	Report Iterations (05 marks will be deducted on each iteration)	20
3	Timely submission of field Audit data (Field Pictures, Videos, Impact Questionnaire, Soft Copies of filled Performa and Drive Test Reports)	20
4	Impact Assessment containing depiction of results from data collected in field	10
5	Timely submission of FM documents i.e. FM claims and supporting evidence (if any)	10
	<b>Sub Total</b>	<b>100</b>
<b>Minimum Score Required To Qualify Technically</b>		<b>75%</b>

*Table 1: Performance Evaluation Criteria*