

RFP for the QoS measurement in Lebanon

Q & A related to Volume II

- Q1. We understood that with option 1, TRA will collect data every month. Can you please specify the number of days that data will be collected each month?
- A1. The data will be collected every month and will include measurements for each hour of every day of that month. Data will be stored whether on a DVD or sent through an FTP link to the TRA (FTP server).
- Q2. Can you please specify the granularity of the raw data collected? Shall we assume the minimum (i.e. 15 mins for instance)?
- A2. Yes you can assume the suggested minimum.
- Q3. Number of concurrent users using the system (at the same time).
- A3. Less than 5 users / 1 administrator.
- Q4. Estimation of the data size to be stored into the system at the beginning + estimation of yearly data growth.
- A4. A maximum of around 3 Gbytes of raw data, per network operator, per month.
- Q5. Data retention Policy (history): 2 years in online system and then backed up and removed completely from the system? Does this covers all type of data (raw, KPIs, drive test data...) or some data aggregation (monthly, yearly) is applied on a per case basis before backing up the data?
- A5. Raw data that were used in the calculation of the KPI's as well as the calculated KPI's shall be stored on the system for a period of 5 years. The 2 years period covers the aggregated reports.
- Q6. Tenderer does have extensive experience in Drive Testing which is one of your requirements. But we recognize that it is important to utilize local sub-contractors as well. I appreciate that you may not chose to answer this question which we can understand but are there any preferred Drive Test companies in Lebanon that we should consider based upon experience with TRA?
- A6. Sub-contracting is a matter that will be dealt with the contractor who will be held responsible towards the TRA. We currently do not know any local company that is interested in running drive tests. You may refer to existing network operators for more information.
- Q7. We have additional questions related to the QoS Monitoring and Measurement RFP. Tenderer wish to offer everything requested by the TRA and requires additional information regarding the optional requirement for an Online Measurement Tool. We have identified that there are 2 different approaches that can be taken and they have wide price differences:
1. Low cost systems that test the internet connection but from an end PC and

2. Probes solutions that would be deployed in the network and test the connection once live data is carried on the network.

A7. Only suggestion 1 (low cost systems) should be considered in the RFP.

Q8. Do you have a tool/solution in mind that you prefer?

A8. Not at all. It is up to respondent to provide TRA with a solution. Kindly refer as an example to the report published by the Portuguese Regulatory Authority on this matter.

Q9. Is it possible that the service provider needs to provide the solution and Tenderer would be responsible on behalf of TRA to just concentrate on checking the reliability of the solution and making the tests with each provider?

A9. Not at all. The service provider is not involved at all and Tenderer is fully responsible to provide the solution relying on the end user equipment and connection.

Q10. Based on free software that is available, Tenderer will build a procedure to download the software on the workstations and collect the data. This will not permit automatic collection of data. Is this a possibility?

A10. Not at all. Tenderer shall build a software solution that will initiate the test, collect the data and send them to the aggregator for calculation and reporting as mentioned in volume II.

Q11. For the “on-line measurement” interface for Internet services” in volume 2 section III.8.1, do we need to provide the agent to monitor workstations or the interface to this agent (to retrieve data from this agent)?

A11. Not at all. Please refer to A10 above.

Q12. TRA will fully provide data sets for wireless to integrate and process in Tenderer tool, would it be the same for fixed and internet services?

A12. Unclear question as not sure if question related to a wireless device. In this case, this is not applicable since end-user is assumed to be fully equipped with internet connection, be it wireless or wired.

Q13. Busy hour defined on page 5 of the following document that is referenced in the RFP: Technical Quality of Service and Key Performance Indicators Regulation

Busy hour - the sliding 60-minute period during which the maximum total traffic load occurs in a given 24-hour period. The service provider is required to indicate the busy hour during which the measurement is taken.

A13. The network busy hour is the hour with the highest aggregated traffic on all the A interface within a day. Please refer to A1 regarding data collection.

Q14. Does the busy hour always starts at the beginning of an hour, e.g. 16:00-17:00 or it can start within an hour, e.g. 16:25-17:25? That would help us determining the complexity of calculating the busy hour and the granularity of raw data required to calculate it.

A14. Yes, the busy hour always starts at the beginning of the hour. Question not clear.

Q15. In volume II on :

1. Page 13 sections III.5.4 and III.5.5 are missing.
2. Page 31 section 2.5 is missing.

A15. There is no missing content in above-mentioned sections please disregard as it is due to a formatting error.

Q16. What data resolution should be used for reporting (hourly, daily, weekly, etc...)?

A16. The KPI's include network elements (cells, switches, etc...) busy hours as well as network busy hours. Therefore reporting should cover both. All monthly reports would be covering the busy hour of each day over the month.

Q17. Do you need a mapping (geospatial) interface?

A17. It is included in the optional applications with the drive test package and interface.

Q18. Do you want the same QoS platform to process drive test data too?

- A18. Not necessarily, as long as there are imports and exports interfaces between the two platforms.
- Q19. Will you provide documentation (description of fields, tables...) of the data that will be retrieved from the wireless network via FTP or on DVD?
- A19. Data definition would be provided for Tenderer and be used for fetching and parsing the raw data files.
- Q20. Volume II- III.8.1.1: Please can the TRA confirm that they will mandate the operators/service providers to identify and provide sufficient end users who have agreed to download the agent for QoS measurement and tests.
- A20. The TRA shall create an awareness campaign to invite users and clients for the broadband measurements. There is no involvement at all of the Service Providers in this campaign.
- Q21. Volume II- III.8.1.2: Please can TRA confirm that the requirement for dial up testing is for a simulated robotic end-user rather than a real service provider customer.
- A21. The end-user's workstation that would be part of the campaign will be connected to the internet through its own means (DSL, wireless and dial-up). The TRA aims to measure the real time behaviour of this internet connection.
- Q22. Volume II- III.8.1.3: Please can TRA confirm that Windows 2000 can be assumed out of scope of the RFP since it is no longer supported by Microsoft.
- A22. Yes, workstations equipped with Windows 2000 or previous operating systems will not be part of the measurement campaign.
- Q23. Volume II- III.8.1.2: For the metrics listed please can TRA confirm that these are not expected for all three connection types, i.e. dial up, ADSLs and wireless broadband since some are not relevant for all connection types.
- A23. Yes, confirmed.
- Q24. Volume II-III.10.6: Where equipment is CE certified please can the TRA confirm that this is acceptable for this requirement.
- A24. TRA accepts all international standards, among which, standards issued by the EC.
- Q25. Volume II- III.11: Please can TRA confirm the required language for helpdesk services.
- A25. The required language for helpdesk is English.
- Q26. Volume II- V.1.1.8: Please can TRA define the terms and clarify the difference between them:
- "data service operators"
 - "broadband operators"
 - "internet service providers"
- A26. Data service operators are operators who have built their own wireless networks to provide connectivity between end users and internet service providers or provide backhaul and leased line services for corporate accounts. Internet Service providers are involved in providing connectivity of end users to the Internet. Broadband operators should be assumed for the time being as the data service operator.
- Q27. Volume II- V.1.1.9: Please can TRA confirm that this includes the requirement for operators/service providers to provide the necessary connectivity and end user agreement for the required QoS measurement.
- A27. Question above is not related to the mentioned section (Volume II – V 1.1.9). In any case, there is no end-user agreement involved and the raw data will be provided by the TRA. For online measurement and end-users involvement, please refer to above related section.
- Q28. Volume II-V.1.1.9: Please can TRA confirm that this also includes the requirement for the operator/service provider to refund service and call charges associated with agreed QoS measurement and testing.

- A28. Sim Cards and call costs for drive tests will be covered by the TRA.
- Q29. Volume II- .2.4, V.3.13: Please can the TRA confirm who will provide the connectivity described in this clause, for example in accordance with volume II V.1.1.9 will the TRA mandate to service providers the requirement to deliver service connections and identify sufficient end users who have agreed to download the agent for QoS measurement and tests.
- A29. Please refer to response A20 above.
- Q30. Volume II-V.3.2 Appendix B: Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPIs:
- Availability of Telephone Exchange Equipment
 - Billing Accuracy
 - Supply Time for Connection
 - Fault Rate per Access Time
 - Fault Repair Time
 - Response Time for Operator Services
- A30. Yes, the service providers shall be mandate to provide all necessary raw data for calculating KPI's mentioned in appendix B, Volume II.
- Q31. Volume II- V.3.3 - Appendix B : Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPIs:
- Supply Time for Connection
 - Average Time to Respond to Customer Calls
- A31. Refer to answer A30 above.
- Q32. Volume II- V.3.4 , Appendix B : Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPIs:
- Supply Time for Connection
 - Fault Repair Time
- A32. Refer to answer A30 above.
- Q33. Volume II- V.3.5 , Appendix B: Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPIs:
- Echo Cancellers usage at the Central Office
 - Resolution time of international gateway fault
- A33. Refer to answer A30 above.
- Q34. Volume II- V.3.6 ,Appendix B: Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPIs:
- Supply Time for Connection
 - Fault Repair Time
- A34. Refer to answer A30 above.
- Q35. Volume II- V.3.7 , Appendix B: Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPIs:
- Availability of Telephone Exchange Equipment
 - Fault Repair Time
 - Supply Time for Connection
- A35. Refer to answer A30 above.

- Q36. Volume II- V.3.8, Appendix B: Please can TRA provide the definition and scope of the services to be tested under the fixed prepaid card services.
- A36. The objective of testing fixed prepaid card services is to determine the accuracy of the prepaid account depletion for all the services.
- Q37. Volume II- V.3.9, Appendix B: For clarification please can TRA provide a definition of what they include under Audio text services and an example including the definition of service supply time in the context of this example.
- A37. For instance, a subscriber with one mobile operator would subscribe to an audio text such as “Horoscope”. In this case, Tenderer shall, based on the raw data provided by the service provider, calculate the time of activation and delivery of such service to the subscriber, as well as checking the correctness of the bill issued for that service.
- Q38. Volume II- V.3.9, Appendix B: Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPI:
- Bill correctness complaints
- A38. Refer to answer A30 above.
- Q39. Volume II-V.3.10, Appendix B: For clarification please can TRA provide a definition of what they include under Premium charge services and an example including the definition of service supply time in the context of this example.
- A39. Refer to answer A37 above.
- Q40. Volume II-V.3.10 , Appendix B: Please can TRA confirm that in accordance with volume II V.1.1.9 the operators/service providers will be mandated to provide the necessary raw data to calculate the following KPI:
- Bill correctness complaints
- A40. Refer to answer A30 above.
- Q41. Volume II- Appendix B: Please can TRA provide a description of the “wireless broadband data services (≥ 2048 bit/s) and clarify the relevance of customer fault rate per leased line and fault repair line in the context of this type of service.
- A41. These are basic wireless leased line services for corporate accounts. Raw data collected from the data or broadband service providers should allow Tenderer to calculate the fault rate per leased line, (i.e. Total faults over total number of leased lines during the measurement period. For the repaired or faulty line it will be the average time for repairing faulty leased line during the measurement period.)
- Q42. Volume II-III.4: Can TRA provide the refresh rate of the data loading into the data warehouse? Daily, hourly...
- A42. Refer to answer A30 above.
- Q43. Volume II- V1.1.2: Can TRA elaborate more regarding the subjective assessment? Level of details required...
- A43. The subjective assessment will be the result of a survey for customer satisfaction levels conducted by the TRA.
- Q44. “May the services be supported remotely, or shall the platform be installed on TRA or other premise?”
- A44. For option 1, the platform should be installed on TRA premises.
- Q45. Ref., Vol. II, III.II Maintenance & Support Offer, page 19, a) Helpdesk Services. “Is the Helpdesk to be available 24/7?”
- A45. Support will be required during normal working hours. We do not have any real time / time sensitive monitoring application.
- Q46. Reference Training. “Will the TRA or other entity make available training facilities to the Bidder/Contractor?”
- A46. Yes. TRA will make available training facilities to the bidders.

- Q47. Ref. Vol. II, Section IV. "Section IV.12.1." The section that is referenced does not exist. It is presumed the reference should be IV.6. Direct Points."
- A47. Unclear. We checked index and content of Volume II and did not find related reference.
- Q48. Ref. Vol. II. V.1.1.4 Measurements several times a year. What does "several times a year mean?" "If the requirement is for bi-annual measurement, but will the bidder receive a higher evaluation point if a quarterly measurement or other period is offered?"
- A48. It means reporting will be done on a quarterly basis based on monthly measurements collected.
- Q49. Ref. Vol. II. V.1.1.2: Second Bullet: Does this require the successful bidder to actually carry out customer surveys, or will TRA conduct these surveys and supply the data to the successful bidder?
- A49. Please refer to answer A43 above
- Q50. Ref. Vol. II. V.1.1.5: "upon request by the TRA from time to time." Will the TRA define "from time to time?" This seems rather a loose specification.
- A50. TRA, for drive tests and inquiry purposes, may issue a request to Tenderer to carry out a particular drive test on a specific date. This should be considered as non-regular assignment and will not be exercised more than 5 times per year.
- Q51. Ref. Vol. II. V.1.1.9: The wording here suggests that the full scope of work may be flexible. This makes pricing difficult. Can the TRA provide more specifics to reduce the possible interpretations and ultimately various pricing considerations?
- A51. Question unclear. In all cases, flexibility may mean the ability to adopt and define new standards KPI's when dealing with new services / technologies introduced into the Lebanese market.
- Q52. Ref. Vol. II. V.2.10: Please confirm that a "Mohafazat" mean a "territory" of Lebanon. Further, please confirm that TRA will coordinate and facilitate the access to operator sites and/or facilities in the five territories. Will TRA intercede in the Contractor's behalf if access difficulties are encountered?
- A52. Yes "Mohafazat" is a well defined administrative territory of Lebanon. Yes TRA will coordinate and facilitate the access to operator sites and/or facilities in the five territories. Of course TRA will intercede in the Contractor's behalf if access difficulties are encountered.
- Q53. During the course of the Audit, will Tenderer be in direct contact with the local operators in order to retrieve information on the coverage zones? It is important for TENDERER to be in close contact with local operators in order to determine the test zones and in order to ensure the continuity of the network service. It is important for the local operators to contact Tenderer team in order to inform them of any network incidents during the course of testing. The local operators will also inform TENDERER on the mobile references to use.
- A53. TRA shall provide the information regarding the designation of the targeted operator required KPI's and coverage tests as well as provide the necessary administrative authorizations and work orders that enable the Tenderer to conduct his audit.
- Q54. Is TENDERER in charge of defining the test plan and the associated volume measurements?
- A54. No, it's the TRA's responsibility.
- Q55. Will TENDERER be in charge of providing the material necessary in order to conduct the Audit :
Mobiles, Sim cards....

- A55. No the TRA will be in charge of providing the material necessary in order to conduct the Audit.
- Q56. Is there any specific mobile constructor TENDERER should use to perform its tests? Or may TENDERER propose its own selection?
- A56. Tenderer should perform tests over multi-vendor/constructors networks.
- Q57. Does the TRA prefer proceeding with Manual or Automated Tests with recommendations?
- A57. Both are required.
- Q58. Does the TRA approve of Automated Tests?
- A58. TRA will approve only the procedure for carrying out the tests.
- Q59. Delivery Dates: Page 32 - V.1.1.4 - and page 35 - V.3.1 both give precise elements regarding delivery dates. There are mentions of semester deliveries, trimester reports and quarterly reports.
- A59. Reporting will be done on a quarterly basis while measurements will be conducted on a monthly basis.
- Q60. Page 32 (V.1.1.4) states "Tenderer shall conduct recurrent measurement organized several times a year...":
- Will TENDERER establish the number of tests to be done throughout the year and thus establish the testing load?
 - Will there be a minimum number of measurements to be taken?
 - What is the exact number of reports to be delivered and what is the periodicity?
- A60. It is up to Tenderer to define the test procedure as long as he provides the TRA with a quarterly report based on measurements.
- Q61. The "Key Performance Indicators shall be measured on sample basis upon request by the TRA from time to time". What will be the frequency of "From time to time »? Would the TRA like TENDERER to submit an ideal timing?
- A61. Refer to answer A30 above.
- Q62. TENDERER would like to know if the TRA would appreciate if TENDERER presented a wider series of tests other than the basic Calls and SMS, such as MMS, WAP, Internet or FTP which can also be tested.
- A62. It is an extra option left up to the Tenderer.
- Q63. Are all three mobile operators are distributed and covered throughout all of Lebanon?
- A63. Actually there are 2 nationally deployed operators; the third mobile operator will be Liban Telecom after its incorporation.
- Q64. Will each all three operators be covered in the geographical measuring point locations?
- A64. Yes, the two existing mobile operators will be covered in the geographical measuring point locations.
- Q65. Benchmarking (page 33 - V.1.1.11): how many operators will be involved in the benchmark that TENDERER will be pursuing? Should TENDERER be considering performing a benchmark or will TENDERER simply be comparing our results with those of an earlier benchmark that has already been performed?
- A65. Measured KPI's shall be compared to benchmark KPI's as determined by Tenderer among which published KPI's by other operators/regulators.
- Q66. Will TENDERER be in charge of conducting a consumer satisfaction analysis? What will be the proportion of consumers' involved? "The subjective assessment is based on the survey of customer satisfaction levels for all the Fixed Basic Services provided by the Operators (BSO) and Cellular Mobile Service Providers (CMSP) including as well as the Data Access Service Providers (DASP) operating in Lebanon."
- A66. Refer to answer A30 above.

- Q67. What is the responsibility for TRA in relation to “end user service quality”. (Section 1.2, page 5)
- A67. TRA is mandated by law to define and monitor quality of service and key performance indicators that should be met by public telecommunications providers in order to ensure consumer satisfaction towards the price/quality, affordability, service coverage, etc...
- Q68. The relation between option 1 and 2. What is the prime wish of TRA? Is it so that they want us to deliver a system and then operate it for a period of time? (section 1.3, page 5)
- A68. Option one includes the acquisition of a platform with a mandatory learning curve to the TRA whereas option 2 is a service option only leaving the TRA without owning the platform.
- Q69. KPIs, how have you identified the KPIs? Standards? Have you set any Lebanese “thresholds”(appendix B)
- A69. The KPI’s were defined in the QOS/KPI Regulation that was based on the international E.800 standard. The threshold have been defined according to the TRA experience of the Lebanese telecom market as well as the immediate need to restore a base line for the general quality in existing network operations.
- Q70. Network upgrades may apply change in the KPIs. How does TRA foresee that this can be done in a efficient and decoupled way towards the Service Providers (section 2.2, page 7)
- A70. The architecture of the solution shall encompass an abstraction layer that requires an update whenever there is a network upgrade of the service provider network. This is expected to be done on a yearly basis. In the case of option 1, TRA shall bear the burden of upgrading its platform whereas in option 2, it is transparent to the TRA.
- Q71. What future technologies do we need to consider (3G, LTE, IMS, cloud technology, SaaS, etc) (section 3.1.1.2, page 9)
- A71. All future technologies will be considered .
- Q72. High level KPIs: Are these the same or additional to the list of KPIs in appendix B (Section 3.2.3, page 10)
- A72. The same list of KPIs in appendix be should be considered, but measured at different periods and/or other KPI’s that could be easily built from the already available and stored raw data in the platform.
- Q73. Is the collect of data from the “online measurement probes “done “offline “like other data...or do TRA expect a special online integration of these data? (Section 2.3.4, page 10)
- A73. Online measurement is carried through software agents installed on a selected work stations participating to the online measurement campaign. Software agent will automatically initiate sessions for measuring the KPI’s and send the data to the central aggregators for reporting (DSL, wireless, etc...)
- Q74. Why does TRA ask for a total flexible solution in data formats when the efficient architecture from TRA specifies that the data should be provided according to a set file format? (Section 3,2,5, page 10)
- A74. TRA requires form Tenderer to adopt a flexible architecture that allows for the processing of raw data from a multi vendor environment. Each platform of each vendor would provide raw data in a proprietary binary format.
- Q75. Who has the responsibility to provide the “general formulas to calculate the common set of KPIs”? (section 3.2.6, page 10)
- A75. It’s the TRA’s responsibility.
- Q76. We understand that the collection is done from DVD or external hard disk. Is this a temporary solution for today as this might be a problem when technology evolves and

the logistic challenge increases when the number of entities to audit grows? (section 3.2.8, page 10)

A76. TRA has indicated 2 possible media examples, one of which being a DVD, the other being an FTP link to the TRA FTP site.

Q77. Why is TRA not requesting aggregated data as well as raw data on the selected counters from Service Provider? To perform aggregation TRA needs to know more about each counter. (section 3.4.1, page 12)

A77. TRA is in the current situation, seeking the most neutral data provided by service providers in order to perform an objective assessment of the quality of service.

Q78. Why is there a need to support all types of formats? To be more future proof and limit the TCO for TRA, unified formats are proposed. (section 3.4.2+3.4.8, page 12,13)

A78. There is need to support all types of formats due to the fact that network operators are equipped by multi-vendor solutions. Tenderer should assure the TRA that the proposed solution / platform is able to read the code, parse and aggregate raw data from multi-vendors platform.

Q79. Are retention period of 2 years related to all data or selected raw data? (section 3.4.4, page 12)

A79. Refer to answer A30 above.

Q80. Please provide additional information about expected processes for Solution Life Cycle Management (section 3.4.11&12, page 13)

A80. Question unclear.

Q81. What data is needed to be stored in 5 years, all data or selected KPI + related raw data? (section 3.5.2, 14)

A81. Refer to answer A30 above.

Q82. What does the requirement “past five years “mean? Do you expect that already recorded data should be migrated into the system? (section 3.5.2, page 14)

A82. Past 5 years means that data will be stored on external archive devices but not live on the storage system of the platform.

Q83. Storage of binary data? Please clarify. (Section 3.5.7, page 14)

A83. Already clarified in answer A74 above.

Q84. What volume of data is expected? Are we talking about all raw data? What does TRA foresee for new technology (section 3.5.9, page 14)

A84. Same as answer A51 above. The system should be flexible enough to allow for an easy development of modules that would be required for KPI's driven by new services/technologies.

Q85. Should the calculated KPIs be stored in a database or calculated at each report time? (section 3.6.1, page 15)

A85. Reports are not stored within the database; they may be archived on a separate media.

Q86. What is the reason to have a dynamic Busy hour calculation for auditing system (section 3.6.9, page 15)

A86. Definition of busy hour is not a static one, it depends on the traffic, on the A interfaces, and the network behaviors.

Q87. Can you please elaborate about the “on-line measurement “interface (section 3.8.1, page 17-18)

A87. Online measurement interface is about Tenderer developing software agent as well as server agent that would be installed on selected work stations and would initiate automatically sessions to measure the quality of service indicators and send the aggregated values to the server agent. Please refer for your information to a report published by the Portuguese Regulator for the online measurement for the internet services.

- Q88. Have TRA defined a list of “stakeholders “and users for the drive test requirement? Are the different use cases and data needs defined? (section 3.8.2, page 19)
- A88. TRA will define on a monthly basis the drive tests schedules and routes in agreement with Tenderer. TRA would expect Tenderer to provide the drive test measurement procedure and requirements for TRA prior approval. Drive tests should be conducted in a resilient and discrete manner (without the knowledge of network operators.)
- Q89. Can TRA provide more information about their Security policies and environment? Does TRA have a SAN environment? Please provide more information about the technical environment and requirements (section 3.10, page 20)
- A89. TRA network is protected by a stand-alone firewall and intrusion prevention system. The TRA does not have a SAN environment. TRA has a fast Ethernet network for work stations and servers connectivity.
- Q90. Please elaborate more on how Option 2 relates to Option 1.
- A90. Please refer to answer Q68 above.
- Q91. Is the “Objective Assessment “done on additional data than provided by the QoSMAS and how should this additional data be collected? (Section V1.1.2, bullet 1, page 31)
- A91. No, not necessary at all.
- Q92. Please inform us about the process how KPIs will be defined and some samples of these types of KPI. (Section V.1.1.5, page 32)
- A92. TRA will provide Tenderer with the exact method of calculation for those KPI’s.
- Q93. The Option 2 seems to be a “managed service “and consultancy service of option 1 with the overall “turn-key “responsibility. How can the provider of Option 2 influence the requirement of QoSMAS and methodology specified for Option 1? (Section V.1.1.6, V.1.1.7, Page 32)
- A93. Please refer to the answer A68 above for the difference between option 1 and 2.
- Q94. Is the solution described in 5.2 different from the QoSMAS solution?(Section 5.2, page 33)
- A94. Question unclear.
- Q95. QoSMAS is specified as an off-line tool for e.g. Mobile data. Here we can see requirement on real-time or near real-time for Mobile related KPI’s. How does these requirements relate? (section 5.2.6, page 34)
- A95. QoSMAS, is an offline platform that measures a set of mobile, fixed, broadband related KPI’s based on raw data that reflects real time or near real time measurement at the service provider network level. The raw data will be collected on a monthly basis by the TRA from the network provider operation and maintenance centers.
- Q96. Is the KPI delivery requirement in section 5.3, page 35 specifying the delivery of the KPIs in Appendix B
- A96. Yes correct.
- Q97. Has TRA considered including Operational KPI in the Audits (e.g. problem resolution on network or customer generated Trouble Tickets).
- A97. Not for the time being.