

DRUŽBA ZA AVTOCESTE V REPUBLIKI SLOVENIJI
DARS d.d.

CHAPTER 2

TERMS OF REFERENCE AND THE PRO-FORMA INVOICE

DOCUMENT #400 – SPECIFICATIONS WITH SCHEDULE OF PRICES

for

Quality Supervision During the ETS Operation Phase

APPENDIX:

1. SERVICE LEVEL AGREEMENT (SLA) – Toll Collection Ratio (SLA 01)
2. SERVICE LEVEL AGREEMENT (SLA) – Enforcement Service Levels (SLA 02)
3. SERVICE LEVEL AGREEMENT (SLA) – Charging Data Collection Levels (SLA 03)
4. SERVICE LEVEL AGREEMENT (SLA) – Customer Service Network Levels (SLA 04)
5. SERVICE LEVEL AGREEMENT (SLA) – Central System Levels (SLA 05)
6. Explanation /answer to questions 043/3 and 4 about SLA01

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Preamble

This document defines the scope of works for the QUALITY SUPERVISOR of the of the new Slovenian Free-Flow Multilane Electronic Toll Collection System (ETS-FTF). Further requirements may be stipulated in or may result from other documents provided within that tender.

This specification raises functional, technical, organizational, and procedural requirements. Where indicated with

This section is subject to the assessment of the bidder's concept, whereby ...
<detailed description depends on the context>

the bidders are requested to reply to this specification (i.e. the entire chapter headed by that yellow box) within their quotation by delivering a detailed concept, explaining the work approach of the bidder and how that work approach fulfills the requirements raised. The structure of that concept shall follow the outline of this specification and the concept shall clearly cross-reference to the requirements raised in the specification (typically but not necessarily¹ marked by a letter in square brackets, e.g. [X]). The concept is subject to assessment by a commission of the Tenderer as defined in the terms & conditions document of the present tender.

¹ For easy cross reference also obligations of DARS and the ETC Contractor are marked with [X] in this document, and other requirements to be fulfilled by the Quality Supervisor may result implicitly from the general description as provided in this document.

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1 Terminology

Within the present document the following terminology is used:

- QS / Quality Supervisor: the entity continuously assessing the service levels declared by the ETC Contractor after the going live date of the ETS-FTF System on a monthly and annual basis as defined in the Service Level Agreements (SLA #01 - SLA #5) being part of the contract with the ETC Contractor.
- QS Contractor: the legal entity carrying out the Quality Supervisor Services based on the contract concluded with DARS.
- QS-SLAMM: the “Service Level Assessment Methodology Model” as designed, implemented, and operated by the QS Contractor
- Quality Server: a designated part of the data warehouse (DWH) as established by the ETC Contractor, containing all SLA and KPI relevant data subject to assessment by the Quality Supervisor (and the ETC Contractor)
- ETL: the process loading data into the DWH, comprising
 - Extraction of data from source systems,
 - Transformation of these data into DWH format allowing querying and analysis, and
 - Loading these data into the DWH.
- ETC System: the system collecting the tolls in terms of hard- and software, functionality, etc. in the meaning the respective context requires, also referred to as EFC - electronic fee collection - system.
- ETC Contractor (also referred to as ETC Systems & Services Provider): the consortium of Telecom Slovenije d.d. and Q-Free ASA - the entity designing, implementing, and maintaining the ETC system based on the contract signed with DARS, no. 717/2016 dated 06.09.2016.
- DARS: the employer of the QS Contractor following the present tender, also the entity having contracted the design, realization, and maintenance of the ETC System to the ETC Contractor, contract no. 717/2016 dated 06.09.2016, whereby DARS will be operating the new ETC System.
- ETS-FTF System: the new Slovenian free flow multilane electronic toll collection system.
- HV / HGV: Heavy Vehicle (bus or truck with/without trailer) / Heavy Goods Vehicle (truck with/without trailer) with a total gross train weight > 3.5 t and hence subject to the electronic toll regime in Slovenia.
- LV: Light Vehicle with a total gross weight ≤ 3.5 t, hence not subject to the electronic toll regime in Slovenia (e.g. motorbikes and passenger cars, even when towing a trailer and the train weight exceeds 3.5 t).
- KPI: Key Performance Indicator, typically demanding certain system performance figures within the definitions of the respective SLA.
- SLA: Service Level Agreement, demanding system performance (KPIs), reaction times, system availability, and similar.

2 Scope of Works

2.1 The Service Level Agreements

The contract between DARS and the ETC Contractor defines the service levels to be achieved, whereby the remuneration of the ETC Contractor depends on the level of that achievement.

The following is just a summary of the 5 Service Level Agreements (SLAs) being part of the contract with the ETC Contractor:

- SLA 01 defines the toll collection ratio (criterion: loss of tolls due to missing DSRC transactions);
- SLA 02 defines the enforcement service levels (criteria: vehicle liability, vehicle classification, automated license plate reading);
- SLA 03 defines the charging data collection levels (criteria: transmission time of charging data records, OBU failure rate, OBU delivery time to PoS);
- SLA 04 defines the customer service network levels (criteria: web portal availability, help desk availability, call center availability);
- SLA 05 defines the central system service levels (central system availability, CRM availability, real time charge assessment module availability).

These Service Level Agreements were already published within the public procurement procedure for the establishment and operation of multilane electronic toll collection system in free-flow traffic on motorways and expressways, published on the procurement portal of 13.07.2015 under No. JN4695 / 2015 at TED on 16/07/2015 under No. 2015 / S 135-249619, and are annexed to this specification (Annex No. 1 to 6).

The Assessment Methodology of these service levels is specified in chapter → 2.3

The main objective of the Quality Supervisor is to monitor and report on the service levels achieved by the ETC Contractor in monthly and annual intervals.

2.2 The Business Model

2.2.1 Responsibility of the ETC Contractor

The ETC Contractor is obliged to declare his SLA performance figures and to provide the interfaces for automated data sampling and reconciliation. He has established a data warehouse (DWH) and loads all relevant raw data into a designated section of that DWH (referred to as Quality Server) within a defined time span to be agreed with the ETC Contractor. By analyzing and processing that data the ETC Contractor derives and reports his figures as defined by the SLA's related to each calendar month as well as annually.

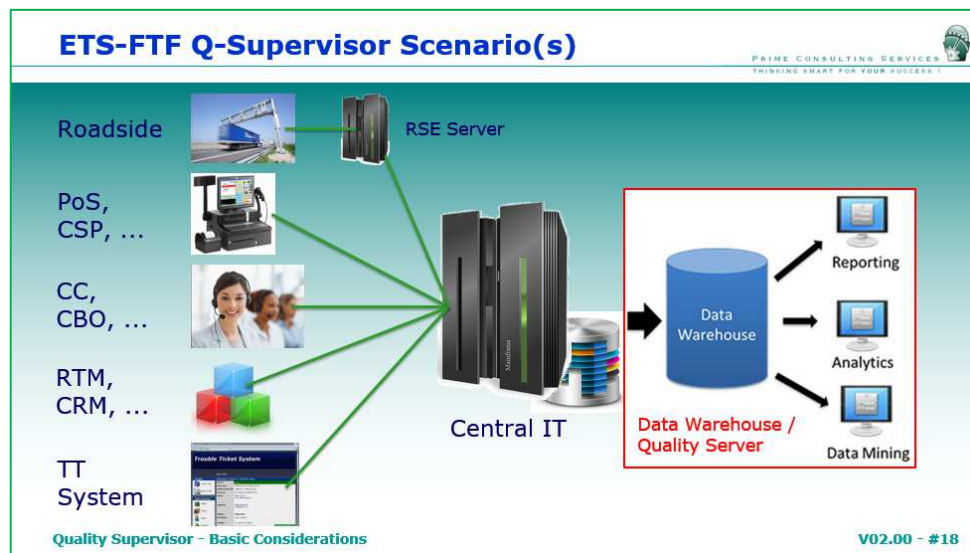


Figure 1: loading the data warehouse with system data for declaration and assessment of SLA figures (source: PCS)

The ETC Contractor is hence responsible for

- [A] the ETL process, extracting all SLA relevant data from source systems, transforming it and loading it into the Quality Server, a separated part of his business data warehouse,
- [B] running his analysis based on that (raw) system data,
- [C] delivering his SLA declaration reports in monthly and annual intervals.

2.2.2 Responsibility of the Quality Supervisor

This section is subject to the assessment of the bidder's concept, whereby that concept shall describe in detail how the bidder intends to fulfill (in case of [D]: to support) the requirements raised

The Quality Supervisor

- [D] is granted full access to the Quality Server,
- [E] implements his own views, queries, etc., on the data provided within the Quality Server, within the design and implementation of his own "Service Level Assessment Methodology Model" (the QS-SLAMM, see → 2.3 and 2.4 for details),
- [F] runs that QS-SLAMM in monthly and annual intervals, thus assessing the SLA levels achieved, unless the QS contract ends, and
- [G] reporting the SLA figures as assessed by the Quality Supervisor in the respective monthly (annual) "Draft Service Level Achievement Report".

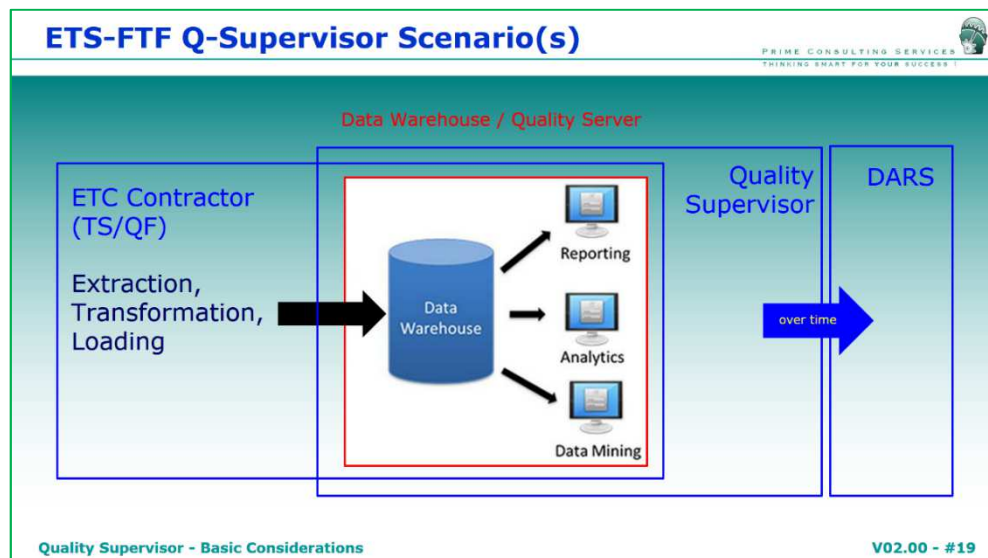


Figure 2: data warehouse serving as quality server to declare and assess SLA figures (source: PCS)

With the end of the QS-Contract DARS intends to take over the QS activities. In that respect, the QS Contractor will be responsible

- [H] for the continuous training of and the continuous knowledge transfer to DARS's personnel during the entire contract duration, thus enabling DARS to run, maintain, and further develop the QS-SLMM once the QS-Contract has expired.

As the business model relies on "all" (relevant) data to be loaded into the DWH by the ETC Contractor correctly, completely, and properly, the QS is in charge of

- [I] the initial checks and further randomized sampling of the ETL processes as performed by the ETC Contractor to assure data integrity within the Quality Server, by e.g. tracing data of specific (e.g. DARS owned) HGVs, HVs and LVs and/or any other measures the QS finds appropriate.

It is obvious that although based on "the same" raw data the two independent approaches from the ETC Contractor and the Quality Supervisor will not deliver the same results in terms of SLA performance figures. Hence, the QS is in charge of

- [J] the initial "Assessment Model Alignment Phase", where the SLA calculation model as deployed by the ETC Contractor and the QS-SLMM are aligned and calibrated, and
- [K] the monthly "Service Level Reconciliation Meetings" between the ETC Contractor and the Quality Supervisor (under participation of DARS), reconciling and aligning the SLA figures reported for the respective month (year), thus rolling up and considering special system events, data elements requiring clarification, resolving different opinions on certain system events, etc., resulting in the respective monthly (annual) „Final Service Level Achievement Report“, reflecting the figures finally agreed between the ETC Contractor and the QS.

The terms "monthly" and "annually" primarily relate to the assessment intervals as defined in the respective SLAs - see these SLAs and the table in → 2.3, in turn also reflecting the reporting periods of both the ETC Contractor and the Quality Supervisor. However, for service levels to be assessed in annual intervals, the Quality Supervisor shall *indicate* the current performance levels in his monthly reports also. This shall take place 2-fold: per the month reported as well as accrued since start of the annual period.

Optionally - that means upon explicit request by DARS - the QS is in charge of

- [L] verifying specific SLA figures like vehicle liability rate, vehicle classification rate, automated license plate reading rate, and similar, by roadside sampling and analyzing vehicle passage data, whereby

the QS shall use his own roadside measurement equipment and backoffice infrastructure for analyzing the data collected. Such request may be issued by DARS 2 to 4 times a year.

2.2.3 Responsibility of DARS

DARS

[M] shall calculate the quality dependent remuneration elements of the ETC Contractor based on the “Final Service Level Achievement Report” as delivered by the QS;

[N] shall participate in the monthly (annual) “Service Level Reconciliation Meetings” (and all similar meetings) between the ETC Contractor and the Quality Supervisor, thus

- mediating between the QS Contractor and the ETC Contractor if necessary (this includes the right of DARS to have the final decision)
- enabling and actively supporting the transfer of the QS processes, knowledge and services (including the QS-SLMM itself) at the end of the QS Contract according to → [H] above.

2.3 The Service Levels and their Assessment Methodology

Based on the Service Level Agreements as published in the public procurement procedure for the establishment and operation of multilane electronic toll collection system in free-flow traffic on motorways and expressways, published on the procurement portal of 13.07.2015 under No. JN4695 / 2015 and on TED on 16.07.2015 under No. 2015 / S 135-249619 already and annexed to that specification as Annex No. 1 - 6 (in turn referring to the Requirements Specification document #400), the Quality Supervisor shall assess and report the SLA levels achieved by the ETC Contractor by applying his own Service Level Assessment Methodology Model (QS-SLAMM), based on the assessment methodologies requested in the table below.

This section is subject to the assessment of the bidder's concept, whereby that concept shall describe in detail how the bidder intends to assess the respective SLA, to assure data integrity and how all that will be covered by his QS-SLAMM !

| Reference | Title | Service Level Definition SLA: see documents # 320-324 RQ: see requirements specification document #400 | Minimum acceptable Service Level | Expected Service Level as agreed with the ETC Contractor | Assessment Interval | Requested Assessment Methodology Approach | Data Subject to Assessment |
|-----------|----------------------------|---|--|--|---------------------|---|--|
| SLA 01 | Toll Collection Ratio | Toll Collection Ratio SLA 01 + RQ B1.5.1 <i>Note: see SLA 01 for details on decreased target figures during the first 3 months of operations!</i> | 0,9500 | 0,9980 | monthly | Assessment of Toll Transaction Database. Assessment of Compliance Record Database. Assessment of Trouble Ticket System. Data Plausibility and Integrity Checks. Randomized Sampling of the ETL Processes. | Entire Databases within the respective Assessment Interval |
| SLA 02 | Enforcement Service Levels | Detection of Liable Vehicles as being liable SLA 02 + RQ D2.11 | 85,0 % | ≥ 97,0 % | monthly | Assessment of Toll Transaction Database. Assessment of Compliance Record Database. Assessment of Trouble Ticket System. Data Plausibility and Integrity Checks. Randomized Sampling of the ETL Processes. Optional occasional Roadside Measurements. | Entire Databases within the respective Assessment Interval |
| | | Detection of Non-Liable Vehicles as being liable SLA 02 + RQ D2.12 | 7,5 % | ≤ 1,0 % | monthly | | |
| | | Correct Classification of Liable Vehicles SLA 02 + RQ D2.13 | 70,0 % | ≥ 95,0 % | monthly | | |
| | | Correct License Plate Number Readout (w/o Nationality) SLA 02 + RQ D2.14 | 80,0 % | ≥ 95,0 % | monthly | | |
| | | Correct Compilation of Compliance Record SLA 02 + RQ D2.16 | 95,0 % | ≥ 99,0 % | monthly | | |
| SLA 03 | Charging Data | Transmission Time of Charging Data Records (CDR) SLA 03 + RQ B1.4.1 | 10 minutes in 90 % of all CDR in a month | ≤ 1 minute | monthly | Assessment of Toll Transaction Database. Assessment of CRM Database. | Entire Databases within the |

| Reference | Title | Service Level Definition SLA: see documents # 320-324 RQ: see requirements specification document #400 | Minimum acceptable Service Level | Expected Service Level as agreed with the ETC Contractor | Assessment Interval | Requested Assessment Methodology Approach | Data Subject to Assessment |
|---------------|--|--|--|--|---------------------|--|--|
| | Collection Levels | OBU Failure Rate SLA 03 + RQ B3.4 | 10 % in a year | 2 % in a year | annually | Data Plausibility and Integrity Checks. Randomized Sampling of the ETL Processes. | respective Assessment Interval |
| | | OBU Delivery Time to Customer Service Points and DARS SLA 03 + RQ B2.2.3 | 3 days after order in more than 10% of the orders in a month | next business day after order | monthly | | |
| SLA 04 | Customer Service Network Levels | WEB Portal Availability Time SLA 04 + RQ C3.8 | 98 % | 99,7 % | annually | Assessment of Trouble Ticket System. Automated and redundant availability check ("ping check") of the WEB portal by the Quality Supervisor. Assessment of system logfiles. Data Plausibility and Integrity Checks. Randomized Sampling of the ETL Processes. | Entire Databases within the respective Assessment Interval |
| | | Maximum Continuous WEP Portal Down-Time SLA 04 + RQ C3.9 | 24 hours | 3 hours | annually | | |
| | | Help Desk Availability Time (not cumulative with RQ E11) SLA 04 + RQ C4.2 | 98 % | 99,7 % | annually | | |
| | | Maximum Continuous Help Desk Down-Time (not cumulative with RQ E11.1) SLA 04 + RQ C4.3 | 24 hours | 3 hours | annually | | |
| | | Call Centre Infrastructure Availability Time SLA 04 + RQ C4.2 | 98 % | 99,7 % | annually | | |
| | | Maximum Continuous Call Centre Infrastructure Down-Time SLA 04 + RQ C4.3 | 12 hours | ≤ 1 hour | annually | | |
| SLA 05 | Central System Levels | Central System Up-Time SLA 05 + RQ E11 | 99,5 % | ≥ 99,90 % | annually | Assessment of Trouble Ticket System. Assessment of system logfiles. Assessment of database logfiles. Data Plausibility and Integrity Checks. Randomized Sampling of the ETL Processes. | Entire Databases within the respective Assessment Interval |
| | | Maximum Continuous Central System Down-Time SLA 05 + RQ E11.1 | 24 hours | ≤ 1 hour | annually | | |
| | | CRM Services Availability (not cumulative with RQ E11.) SLA 05 + RQ E11.2 | 99,5 % | ≥ 99,90 % | annually | | |

| Reference | Title | Service Level Definition SLA: see documents # 320-324 RQ: see requirements specification document #400 | Minimum acceptable Service Level | Expected Service Level as agreed with the ETC Contractor | Assessment Interval | Requested Assessment Methodology Approach | Data Subject to Assessment |
|-----------|-------|---|----------------------------------|--|---------------------|---|----------------------------|
| | | Maximum Continuous CRM Down-Time (not cumulative with RQ E11.1) SLA 05 + RQ E11.3 | 24 hours | ≤ 1 hour | annually | | |
| | | Real Time Charge Assessment Module Availability (not cumulative with RQ E11) SLA 05 + RQ E11.4 | 99,5 % | ≥ 99,9 % | annually | | |
| | | Maximum Continuous Real Time Charge Assessment Module Down-Time (not cumulative with RQ E11.1) SLA 05 + RQ E11.5 | 24 hours | ≤ 1 hour | annually | | |

2.4 The QS - Service Level Assessment Methodology Model (QS-SLAMM)

This section is subject to the assessment of the bidder's concept, whereby that concept shall describe in detail how the bidder intends to design, deploy, and optimize his QS-SLAMM, including a time schedule of the related QS Contractor activities!

2.4.1 Data Acquisition and SLA/KPI Assessment

Section → 2.3 defines the SLA levels to be assessed and the assessment methodologies to be applied at least, subject to further enhancement by the Quality Supervisor's Assessment Methodology Model (QS-SLAMM). Regarding the data acquisition and SLA/KPI assessment the following requirements apply:

- [O] The respective data acquisition within the Quality Server shall be carried out automatically as far as possible, thus minimizing the need for human action or intervention. Such data acquisition shall utilize standard interface and database mechanisms; queries, views, etc. as defined by the QS shall adhere to best practice of DWH data analysis and shall keep the use of DWH system resources within the limits necessary for the purpose of SLA and KPI assessment. The processes and procedures deployed by the QS shall include methods of verifying and validating the integrity of the raw data as provided within the Quality Server so that intentional, unintentional, systematic, non-systematic, and other errors are identified before that raw data is being further processed by the QS-SLAMM.
- [P] Within the QA-SLAMM the QS Contractor shall define processes for assessing all SLAs / KPIs as defined in section → 2.3 and shall implement procedures for carrying out these processes automatically to the extent economically possible, thus minimizing human action or intervention. The processes and procedures deployed shall include methods of validating the results of the assessment processes so that intentional, unintentional, systematic, non-systematic and other errors are identified before the results of the assessments as produced by the QS-SLAMM are reported in terms of a monthly (annual) "Draft / Final Service Level Achievement Report".

2.4.2 QS-SLAMM Definition

As already outlined in → 2.2.2 [E] the QS Contractor shall initially define, jointly with DARS, the detailed methods, statistical approaches, and methodologies applied for data acquisition and assessment within his Service Level Assessment Methodology Model (QS-SLAMM), determining the service levels actually achieved.

In a second step and as already required in → 2.2.2 [J] the QS-SLAMM shall be aligned with the SLA calculation model as deployed by the ETC Contractor and the QS-SLAMM are aligned, thus calibrating both models. Especially but not limited to that phase the QS Contractor shall support DARS in achieving acceptance of the QS-SLAMM by the ETC Contractor.

2.4.3 QS-SLAMM Deployment and Operation

The deployment and operation, optimization and adaptation of the QS-SLAMM shall follow the following requirements:

- [Q] Once The QS-SLAMM found acceptance by DARS and the ETC Contractor, it shall be developed, tested, deployed, and further operated by the QS Contractor. The latter may further optimize his QS-SLAMM as he intends on his own expense, provided there is no change in the assessment results. If such optimization could (not necessarily will) result in changes of the assessment results, the QS Contractor needs approval of DARS and the ETC Contractor prior to implementing such changes.
- [R] After the deployment of the QS-SLAMM the QS Contractor is obliged to implement changes to the QS-SLAMM if DARS or the ETC Contractor require such changes, provided the other party agrees to such changes and the way these are implemented, against separate remuneration.

Deployment and operation of QS-SLAMM includes the following requirements:

- [S] The QS Contractor shall procure, operate and maintain any equipment and / or software he deems necessary for the acquisition of input data needed for QS-SLAMM.

- [T] The QS Contractor shall procure, operate and maintain any equipment and / or software he deems necessary for the operation of QS-SLAMM.
- [U] Referring to → 2.2.2 [I], the initial checks and further randomized sampling of the ETL processes as performed by the ETC Contractor, requirements [S] and [T] include but are not limited to the provision of any portable or in-vehicle or roadside measurement or data acquisition equipment or similar devices as deemed necessary by the QS Contractor. However, if the QS requires so, DARS will make available to the QS Contractor standard OBUs of the ETS-FTF system in reasonable quantities and will provide the QS with fleet data of his own vehicles at no charge.
- [V] Any equipment and / or software used by the QS Contractor shall be independent of the equipment or software used by DARS or the ETC Contractor with the exception of accessing the Quality Server.

Whereby:

- [W] DARS will grant the QS Contractor at no extra charge temporary access to the mechanical roadside infrastructure - namely the gantries of Tolling- and Enforcement Stations - provided the QS Contractor requires so and guarantees and proves during the deployment the equipment he is installing on these gantries does not impact any functionality or any performance of the ETC System. Any vehicle or roadside equipment the QS Contractor intends to use shall be autonomously powered and shall provide independent data connectivity, if required. The QS Contractor shall not install any part of his equipment permanently on the roadside mechanical infrastructure.
- [X] In regard to → 2.2.2 [I] the QS Contractor shall define a sampling plan regarding the randomized sampling of the ETL processes as performed by the ETC Contractor and/or the other measures the QS finds appropriate on an annual basis, due for delivery to DARS six weeks after the QS contract comes into forth and 6 weeks before the end of each year regarding the following year, subject to acceptance by DARS.

2.4.4 Time Schedule

Within this concept, a time schedule shall be provided, showing the activities of the QS Contractor to fulfill the following milestones:

- Milestone A - QS-SLAMM design completed: within 30 days following the Introduction into work;
- Milestone B - QS-SLAMM aligned and calibrated with the ETC Contractor: within 60 days following the Introduction into work
- Milestone C - QS-SLAMM deployed and tested: within 75 days following the Introduction into work;
- Milestone D - within 90 days following the Introduction into work the QS Contractor starts the productive operation of the QS-SLAMM by assessing the SLA's for a period of 36 months, following the time limits as defined in chapter "Workflow" (→ 05). DARS will notify the QS Contractor when to begin with quality control services by a special letter.

2.5 Workflow

This chapter summarizes the workflow as described (inter alia) in → 2.2 The Business Model and → 2.4 The QS-SLAMM, whereby

[Y] the QS Contractor shall adhere to the workflow and the timing as defined below.

2.5.1 Monthly Tasks

For each calendar month the following tasks shall be performed by the QS Contractor:

| Task | Description |
|---------------------------------------|---|
| 1. Data sampling | Acquisition, verification and validation of all input data for QS-SLAMM |
| 2. SLA / KPI assessment | Running the QS-SLAMM, resulting in the assessment of the actual SLA / KPI levels achieved in the respective month (year) ² , validation of the assessment results and production of the monthly (annual) "Draft Service Level Achievement Report", followed by the delivery of that report to the ETC Contractor and (informatively) to DARS. |
| 3. Draft Reporting and Reconciliation | Discussion of the monthly (annual) "Draft Service Level Achievement Report" within the monthly "Service Level Reconciliation Meeting" between the ETC Contractor and the Quality Supervisor in presence of DARS, reconciling and aligning the SLA figures reported for the respective month (year) by the QS with those reported by the ETC Contractor, whereby the QS is in charge of scheduling and chairing that meeting. The meeting shall take place at DARS premises or any other location jointly agreed between all participants. |
| 4. Final Reporting | Production of the monthly (annual) „Final Service Level Achievement Report", reflecting the figures finally agreed between the ETC Contractor and the QS, and transmittal to DARS and the ETC Contractor. |
| 5. Presentation Meeting (if needed) | Presentation meeting with DARS (and/or any third party / parties as nominated by DARS) on monthly (annual) „Draft / Final Service Level Achievement Report", whereby such meeting is primarily intended (but not limited to) the presentation of ETC System performance figures or any other data to e.g. the Slovenian MoT or at similar events. |

2.5.2 Timing

The timing of the workflow shall be as follows, whereby the exceptions outlined in → 2.5.3 apply initially.

| Task | Timing |
|---------------------------------------|--|
| 1. Data sampling | The monthly (annual) "Draft Service Level Achievement Report" shall be delivered latest 20 calendar days after each month end. |
| 2. SLA / KPI assessment | |
| 3. Draft Reporting and Reconciliation | The reconciliation may start on technical level mutually between the QS and the ETC Contractor immediately following the delivery of that draft report. However, the monthly "Service Level Reconciliation Meeting" shall take place 25 days after each month end at the latest. |

² In regard to assessing and reporting monthly and annual figures as per the SLA assessment intervals defined, see lit. → 2.2.2 [K], 2nd paragraph, for details.

| Task | Timing |
|-------------------------------------|--|
| 4. Final Reporting | The monthly (annual) "Final Service Level Achievement Report" shall be delivered within 5 calendar following the "Service Level Reconciliation Meeting". |
| 5. Presentation Meeting (if needed) | A presentation meeting may be required any time by DARS as it may concern any reporting period before. |

2.5.3 Initial Restrictions

For practical reasons for the first complete three calendar months following the going live date of the ETS-FTF System the periods as defined in 2.5.2 are extended as follows:

| Task | Timing |
|---------------------------------------|---|
| 1. Data sampling | The monthly (annual) "Draft Service Level Achievement Report" shall be delivered latest 45 calendar days after each month end. |
| 2. SLA / KPI assessment | |
| 3. Draft Reporting and Reconciliation | The reconciliation may start on technical level mutually between the QS and the ETC Contractor immediately following the delivery of that draft report. However, the monthly "Service Level Reconciliation Meeting" shall take place within 60 days after each month end. |
| 4. Final Reporting | The monthly (annual) "Final Service Level Achievement Report" shall be delivered within 10 calendar following the "Service Level Reconciliation Meeting". |

In terms of SLA / KPI contents and expected service levels there are no reliefs except the Toll Collection Ratio to be achieved in these first three months of ETS-FTF system operations as defined in SLA 01.

2.6 Hardware and Application Software

When supplying hardware, the Tenderer must consider minimum hardware requirements:

- Servers must be in rack enclosure cabinets;
- The platform must be based on at least 2-processor Intel technology;
- It must have the IPMI module for independent remote server management (e.g. HPE iLO, Dell DRAC, etc.) with activated licences for remote console and authentication via LDAP;
- At least 4 x 1GbE integrated network interfaces;
- Possible integration of 8 hard drives;
- Integrated RAID controller with at least 2GB FBWC and the support for RAID 0, 1, 5, 6, 10;
- The hard drive configuration should have at least 1 redundancy drive (e.g. RAID 5) with 1 hot spare drive for automatic recovery of RAID arrays in the event of disk failure. Drives replacement must be implemented in full operation server (hot-swap).
- All drives must be at least SAS 10k;
- Possible implementation of at least 2 additional PCIE cards;
- The Client shall have at least 2TB of free data space on their disk array for backup purposes. At least one 2-port FC card with SFP must be integrated into the server. The card must be compatible with the Brocade;

When supplying the system and application software, the bidder shall consider the following minimum requirements:

- the operation system installed to the server equipment should be Microsoft Windows Server 2012 R2 or later;
- the user authentication shall be set via contractor's active directory;

- an encrypted connection shall be set up (e.g. TLS) for communication between the user's workstation and the server.
- The data to be processed and the results of the analyzes that are the subject of this call must be recorded in such a way that access to the data is possible even without the use of a dedicated application. The subscriber must have the possibility to transfer this data and the results of analyzes to other relational databases.

During the agreement term, the service provider shall install updates and safety corrections in agreement with the contractor for the supplied hardware as well as the system and application software.

The Appendix to the receipt that will reflect the charges for the Item 2.6 from the tender estimate, the Contractor shall display the partition of the Item 2.6 amount, so that it will be possible to separately record the costs for the supplying and implementation of the hardware, and the costs for the supplying and implementation of the application software in accordance with Slovenian accounting standards.

3 Organizational Setup

This section is subject to the assessment of the bidder's concept, whereby that concept shall describe how the bidder intends to implement the organizational setup.

3.1 Timeline

The QS Contractor shall set up a virtual project organization within 30 days after the contract is in force in accordance with the requirements provided below.

3.2 Project Office

The QS Contractor shall establish and operate a virtual Project Office for the whole duration of the QS Contract, serving as a hub for DARS and the ETC Contractor to communicate with the QS Contractor, including the exchange of information, scheduling meetings, and all other QS related activities.

3.3 Project Organization and Experts

The QS Contractor shall establish and maintain a virtual project organization in line with the requirements raised in this chapter and for the whole duration of the QS contract, nominating and providing 3 - 5 individuals covering the Expert Roles for the fields of expertise defined in the table below. For every Expert Roles there can be nominated only one individual, whereby one individual shall not cover more than 2 roles. That virtual project organization shall be supported by staff of the QS Contractor as he deems necessary to fulfill his contractual obligations completely, timely and adhering to highest quality standards possible.

DARS is aware that latest after completion of the initial project phase establishing the QS services including the design and the deployment of the QS-SLMM and its initial alignment with the SLA reporting of the ETC Contractor, neither of the nominated individuals will need to be assigned full time to the QS Contract. Nevertheless, the QS Contractor shall assure the availability and the presence of the individuals assigned to the various Expert Roles if necessary during the entire duration of the QS Contract, including but not limited to the reconciliation of assessment results, for reconciliation meetings, etc. or whenever requested so for QS related matters by DARS.

By the nature of a virtual project organization it is not required the individuals as nominated by the QS Contractor are physically located within Slovenia, provided they are available for personal meetings as scheduled in advance (e.g. any project meetings, the regular reconciliation meetings), via phone and e-mail and for video conferences, all during normal business hours and within reasonable notice time, whereby 'reasonable' shall reflect the urgency of any request surfacing out of any QS activities as well as considering, on the other hand, holiday times and other business activities of these individuals.

Note: The references of the individuals nominated to cover the Expert Roles are subject to assessment as outlined in the Tender Documentation.

| Expert Role | Responsibility |
|--------------------------|---|
| Project Manager | <p>The Project Manager (PM) is responsible for the fulfillment of the Contract and manages the execution of the QS Services as well as the QS Contract during the project deployment phase. Once the QS-SLAMM deployment is completed and operated in a steady state, his functions may be taken over by the QS-SLAMM Specialist. When that role is passed on, is at sole discretion of the QS Contractor.</p> <p>The PM is the prime interface to DARS and any third party involved in the Project like e.g. the ETC Contractor regarding all QS matters. This includes (but is not limited to) the design, deployment, and operation of the QS-SLAMM, including the alignment of the model's setup and the reconciliation of the monthly (annual) Service Level Achievement Reports.</p> <p>The Specialists as suggested but not limited to those below support the PM within the execution of the QS Services.</p> |
| QS-SLAMM Specialist | <p>The QS-SLAMM Specialist is the “mastermind” behind the QS-SLAMM and responsible for the design, deployment, and operation of the QS-SLAMM, including the alignment of the model's setup and the reconciliation of the monthly (annual) Service Level Achievement Reports.</p> |
| Data Analysis Specialist | <p>The Data Analysis Specialist is especially responsible for the data acquisition and verification within the design, deployment, and operation of the QS-SLAMM, including the alignment of the model's setup and the reconciliation of the monthly (annual) Service Level Achievement Reports.</p> |
| ETC Specialist | <p>The ETC Specialist is responsible for understanding the functionality and the technical background of the entire ETS-FTF System as deployed by the ETC Contractor and operated by DARS, covering both electronic toll collection and enforcement, thus providing the technical expertise for the design, deployment, and operation of the QS-SLAMM, including the alignment of the model's setup and the reconciliation of the monthly (annual) Service Level Achievement Reports.</p> |
| Statistics Specialist | <p>The Statistics Specialist is responsible for all statistical matters regarding the design, deployment, and operation of the QS-SLAMM, including the alignment of the model's setup and the reconciliation of the monthly (annual) Service Level Achievement Reports.</p> |

During the term of the agreement other individuals for other special topics may be nominated by the QS Contractor as he deems necessary, however, such additional specialists are not subject to bid assessment.

3.4 Demonstration of Capabilities

The QS Contractor shall demonstrate his monitoring and auditing capabilities within 30 days after the Contract is in force. Failure to do so entitles DARS to draw the performance bond. If the QS Contractor fails to

demonstrate his capabilities within another 30 days, DARS is entitled to charge a contractual penalty and/or immediately terminate the QS Contract.

The scope of that capability demonstration shall include but is not limited to

- a) a presentation of
 - the QS's organization and the individuals assigned to the Expert Roles;
 - the process to design, develop, deploy, and operate the QS-SLAMM as well as of the methodological approach of the QS-SLAMM as such;
 - the planned approach to reconcile that model as well as the results reported with the ETC Contractor and DARS;
 - all hardware and software intended to be used centrally and roadside within the provision of the QS services;
 - examples for SLA/KPI evaluation, reporting, reconciliation, and presentation methodologies;
- b) a demonstration of the equipment intended to be used by the QS Contractor for the independent road side reference measurements according to → 2.2.2 [L], comprising at least a demonstration of the minimum performance to be expected regarding
 - the identification of vehicles being liable / not liable,
 - the assessment of the vehicle classes (2/3/4+ axles),
 - the ANPR system to be used,including the (planned) physical setup of that roadside equipment.

The venue shall be any office of DARS. The location for the roadside demonstration shall be jointly defined between DARS and the QS Contractor within the toll road network of Slovenia and the vicinity of the venue.

3.5 Language

The official language of the QS Contract is Slovenian and all final deliverables (especially but not limited to the specifications of the QS-SLAMM and the monthly (annual) Service Level Achievement Reports) shall hence be in that language. The working language, however, is English, due to the internationality of the entire ETS-FTF project. Notwithstanding above, in case of any deviations the Slovenian version of any deliverable shall prevail. On DARS's request, the QS Contractor must ensure an interpretation into Slovenian language on the "Presentation meetings" as specified in price schedule - pos 4.5.

Other Responsibilities of the QS Contractor

3.5.1 QS Regular Meetings

Regarding the regular meetings of the QS Contractor with the ETC Contractor and DARS refer to → chapter 0 Workflow above. These meetings take place at DARS premises or any other location jointly agreed between the participants.

3.5.2 QS Ad hoc Meetings

Additionally, ad hoc meetings may be called in by DARS at any location within Slovenia for reasons related to QS activities, especially but not limited to issues related to ETS-FTF System performance, SLA general matters, and similar. For such meetings a notice time of at least 5 working days shall apply if not agreed otherwise by the participants invited. The individuals nominated for the Experts Roles necessary according to the meeting's topic shall follow such invitations unless providing qualified reasons not being able to attend.

These meetings shall be reimbursed separately time and effort based, pursuant to the expert's hourly rates as specified for that purpose in the price schedule (price group 5).

3.5.3 QS Minutes of Meeting

The QS Contractor shall minute every meeting he is participating unless agreed otherwise by the meeting participants.