

Annex XX - Design, Development, Setup and Operation of the AVODS System **within scope of the Alternative Experiment**

1. Definitions

- 1.1 Cooperative Travel - A journey in which passengers participate in a number exceeding the minimal number of passengers in volunteer vehicles, as decided by the company.
- 1.2 Experiment Areas - polygons as defined in documents of the alternative tender, that include the metropolis polygon and the metropolis edges polygon.
- 1.3 Raw Data - Data being gathered by the system in volunteers' vehicles.
- 1.4 Accuracy levels - The accuracy level required of the system, as detailed in Section 4 following.
- 1.5 Overall accuracy level - As defined in section 3 below.
- 1.6 Accuracy level for the POC stage - The accuracy level required for the POC stage, as defined in section 5.6 of the Annex to the POC requirements.

2. General

- 2.1 The supplier will be required to design, develop and purchase system parts and elements, and to install, operate and maintain the Automated Vehicle Occupancy Detection (AVODS) system, within scope of the Alternative Experiment.
- 2.2 The objective of the system will be to identify the number of passengers in the "volunteer vehicles" participating in the experiment in order to update the budget per volunteer, according to the budget algorithm in the Alternative experiment.
- 2.3 Within this volume are detailed the functional requirements of the system. The requirements are detailed in a general manner, such as required to enable the submission of proposals using a wide range of technologies. Within the design process (as detailed following), the company shall decide on the manner of the requirements according to technology that will be chosen and the supplier response to the tender.
- 2.4 Hereby clarified the requirements of this specification shall be considered minimal requirements. The Supplier will execute additional activities as required for compliance with requirements of the agreement, to the extent necessary.
- 2.5 The system shall include all the elements, components and associated equipment required for its installation and full operation (to the extent relevant, and without impact on the generality of the stated), identification and detection equipment, management and control system, third party licenses.
- 2.6 The system will include all the accumulated capabilities as presented by the supplier within the scope of his response to the tender, and at the POC stage.
- 2.7 In addition, the requirements as detailed within this specification will be used for the **PROOF OF CONCEPT** (POC) stage (as stated in clause11 in volume A.

3. Accuracy Level required of the System

- 3.1 The system must identify the number of passengers the volunteer vehicles, as part of the Alternative experiment.

- 3.2 The identification will comply with the accuracy requirements as defined for each of the parameters as defined within this section.
- 3.2.1 FP = False Positive - Travel by a volunteer, that complies with the requirements of cooperative travel, but the system has defined as non-complying (the number of such trips: FP).
 - 3.2.2 FN = False Negative - Travel by a volunteer, that does not comply with the requirements of cooperative travel, but the system has defined as complying (the number of such trips: FN).
 - 3.2.3 TP = True Positive - Travel by a volunteer, that does not comply with the requirements of cooperative travel and the system has in fact defined it as such (the number of such trips: TP).
 - 3.2.4 TN = True Negative - travel by a volunteer, that complies with requirements of cooperative travel (the number of such trips: TN).
 - 3.2.5 Number of relevant trips - The total number of volunteer vehicle trips during the Experiment.
 - 3.2.6 FP Percentage = $FP * 100 / \text{total number of Relevant Trips}$.
 - 3.2.7 FN Percentage = $FN * 100 / \text{total number of Relevant Trips}$
 - 3.2.8 Automation Percentage: the number of trips for which the system has automatically determined the number of passengers in said vehicles that performed the trips (whether said determination was correct or erroneous), divided by the number of relevant trips, expressed as percentage.
 - 3.2.9 Total System Accuracy percentage will be calculated per the following equation:
 $TSA = (TP + TN) * 100 / \text{Number of Relevant Trips}$
- 3.3 Minimal accuracy level of the system (measured in quarterly terms):
- 3.3.1 FP Percentage $\leq 0.5\%$.
 - 3.3.2 FN Percentage $\leq 1.0\%$.
 - 3.3.3 Total System Accuracy Percentage $\geq 98.0\%$
 - 3.3.4 Automation Percentage $\geq 99.0\%$
- 3.4 The system will ensure its compliance with Overall Accuracy Levels, under all conditions and at all times, including in the following cases:
- 3.4.1 All possible traffic densities within the experiment areas.
 - 3.4.2 Under all environmental interference and conditions (including - lack of cellular coverage, deviating weather conditions, magnetic interference, etc.).
 - 3.4.3 Under all extreme weather conditions, at 10 to 70 degrees Celsius, including under direct sunlight at all angles, fog and rain conditions.
 - 3.4.4 Under all lighting conditions (light/dark/partial visibility).
- 3.5 Proof of System Accuracy
- 3.5.1 The Method used for proving of accuracy will be defined by the supplier within scope of the methodology document (that will be submitted within the response to the tender).
 - 3.5.2 The company (itself or by anyone acting on its behalf) may perform a system accuracy check. The supplier will be obliged to cooperate with the designated company for this purpose. In the event of gaps between the accuracy checks, the accuracy check carried out by the company will be decisive.

- 3.5.3 The company will have the right to demand from the supplier the execution of changes and adaptations in the system accuracy examination check, from time to time, per the lessons learned from operation of the system, and per changes in the technology.

4. Functional Requirements of the System

The system shall comply with the functional requirements detailed within this section (irrespective of the technology that will be applied). It is clarified that these are requirements only, the implementation of the system shall be as specified in section 15 below

- 4.1 The system will operate as an independent system.
- 4.2 End accessories of the system will be installed in the volunteer vehicles, or adjacent to them.
- 4.3 The system will be able to identify between humans and animals and objects
- 4.4 System operation will be as simple as possible. With a minimum need for any activation by the Volunteer or by the Cooperative passengers in the vehicle when travelling.
- 4.5 The system will begin the measurement within 60 seconds of starting of the vehicle or operation of the systems by a volunteer, and will operate continuously throughout the trip.
- 4.6 A volunteer will not be able to interrupt the system operation, at his consideration.
- 4.7 The system will **enable** a dynamic delivery of data in every 5-minute intervals in respect to the precise geographic position of the vehicle, and the number of occupants in the vehicle at the same location and point in time. The system will transmit information only when the vehicle is within the experiment area, and during normal activity times. The information should be transferred according to clause 5.5 below.
- 4.8 The system will operate at availability level of at least 99.8%, said in cases of total system failure (a fault requiring shutdown of the entire system or essential parts of the system).
- 4.9 The system will operate while observing the full privacy of people in the vehicle, as required by law, including the Privacy Protection Law of 1981, including all regulations of the law, and guidelines of the Privacy Protection Authority, as well as commonly accepted international standards including instructions of the European GDPR, as updated from time to time.
- 4.10 The system will not interfere with the driving of the car and will have no effect on safety of the vehicle, as required by law.
- 4.11 Canceled.
- 4.12 The system will include an internal RAM memory that will provide for the saving of data, in the event that the communication link will be inactive, for a time period of no less than 24 hours.
- 4.13 The system will include a location detection capability, that will be based on the receiving of Global Navigation Satellite signals, the GNSS system. The system will include a satellite receiver equipped to receive several satellite transmission systems, such as: GPS, GALILEO, GLONASS, at reception sensitivity exceeding 165db. The accuracy of position location data will be at level of ± 10 meters.
- 4.14 The system will include interfaces (API), that will provide for interfacing with external systems such as the operation systems of operators within scope of the alternative experiment and applications.
- 4.15 The system will provide for the changing of parameters without using programming of code (including - changes to the definition of experiment areas and operating periods, requirements of cooperative travel, changes to accuracy levels, etc.), and by means of remote-control centers (to the extent possible).

- 4.16 Functional requirements of end accessories (where said end accessory is not a cellular phone owned by a volunteer):
- 4.16.1 The system will enable operation for at least 3 hours after disconnection of the end accessory from vehicle batteries.
 - 4.16.2 The System end accessories Will withstand extreme environmental conditions in Israel including temperatures in the vehicle, as encountered, of 10°C to 70°C, at relative humidity levels of 10% to 95%.
 - 4.16.3 Energy consumption of the end accessories: with the vehicle operating, consumption shall not exceed 0.5 A/h, when vehicle not operating - consumption will not exceed 30 mA/h (on 12V systems).
 - 4.16.4 Will be protected against water, will comply with standard **IEC 60529** of no less than IP45.
 - 4.16.5 Will withstand fire and fire propagation per Israel Standard Spec. 373.
 - 4.16.6 Will comply with the requirements of the following standards: FCC Part 15 class B, CE: Directive 2014/53/EU (RED) or Automotive Directive 2004/104/EC, or per radiation standards for electronic equipment as acceptable in Israel, per IS 961 Part 3.1 - Electromagnetic compatibility and measurement methods of radio interference from electrical and electronic subassemblies installed in vehicles and that are related to automotive safety systems, or any other Israeli standard.
 - 4.16.7 Will comply with the sections detailed below of Israel Standard IS 5905, or per alternative standards as proposed by the supplier and approved by the company:
 - 4.16.7.1 Part 1 - Functional requirements of trip monitoring systems.
 - 4.16.7.2 Part 2 - Final monitoring system for monitoring of trip data, device for the registration of trip data - 4.
 - 4.16.7.3 General requirements, requirements for the withstanding of environmental conditions and electrical requirements.
 - 4.16.7.4 Part 3 - Final trip monitoring system: device for the registration of trip data - installation requirements (except Chap. 10 - Driver Message Signpost).

5. Guidelines including System Architecture

5.1 System Data Storage

- 5.1.1 The supplier will store all data (Including Raw data) in a cloud environment or local environment or mixed environment (the manufacturing site in local environment with backup to a cloud) - per supplier's choice.
- 5.1.2 **"Local Environment"** - will comply with the following minimal requirements:
 - 5.1.2.1 Will include an array of at least two (2) computer rooms, located at least 15 km one from the other (aerial distance).
 - 5.1.2.2 Each of the facilities will be able to provide all the required services, without relying on infrastructures installed at the other facility.
 - 5.1.2.3 Each such hosting facility will host at least 200 physical servers.
 - 5.1.2.4 The level of the electro-mechanical systems at the host facilities will comply with requirements of the Tier III standard, per definitions of the Uptime Institute.
- 5.1.3 **"Cloud Environment"** - will comply with the following minimal requirements:
 - 5.1.3.1 The cloud supplier providing cloud services will be equipped with at least two facilities, located at range of at least 15 km one from the other that will operate in mutual backup mode.

- 5.1.3.2 Storage of data to in cloud environment will be subjected to the guidelines of the IT Authority, as applicable to the data security issue, when moving data to a public cloud environment (latest edition of Directive No. 6.12.5.1).
- 5.1.3.3 The cloud supplier will comply with the requirements of Standard 270001.
- 5.1.3.4 The cloud supplier will be committed to an availability exceeding 99.9% at all times.
- 5.1.3.5 The cloud supplier will be a supplier serving at least 1000 customers.

5.2 Backup and Survivability

- 5.2.1 The system will provide for the storage of data for at least 3 years of the last registered date of use, of all the data required for the handling and in response to appeals that may be submitted by volunteers, as well as for debriefing
- 5.2.2 The supplier shall operate backup and recovery mechanisms for all the data being stored in the system.
- 5.2.3 The proposed recovery mechanism will include functionalities for the management of recoveries, at various levels, starting from an overall level and up to the recovery of raw data.
- 5.2.4 Recovery requirements will provide for the following minimal levels:
 - 5.2.4.1 An ability to recover activities within 6 hours of the time of the system failure (RTO - Recovery Time Objective).
 - 5.2.4.2 An ability to recover data within 2 hours of system failure (RPO - Recovery Point Objective).

5.3 Control System

- 5.3.1 The system will include control system capabilities (hereinafter: "Control System"). The control system will include the following components:
 - 5.3.1.1 Software and hardware for system management and for running of all the required applications.
 - 5.3.1.2 Communication elements (wireless or landline), for the transmission of data from end units to the processing center.
 - 5.3.1.3 A data processing capability, including execution of all the required analyses.
 - 5.3.1.4 Storage and management of data and information (including raw data and processed data).
 - 5.3.1.5 Generation of detailed reports as required by the company. The issued reports will be based on a commonly used reports generator, that will be approved by the company and that will provide for the automatic generation of reports.
 - 5.3.1.6 Management of interfaces to other systems, as detailed following.

5.4 User Interface

- 5.4.1 The system is to be based on a Web interface, for the operators and the company.
- 5.4.2 The system will allow user permissions to be set according to permission levels to be defined in the approved design.

5.5 System Interfaces

- 5.5.1 The system will include an API as required for interfacing to other systems.
- 5.5.2 Among others, the supplier should transfer the information to the following systems:
 - 5.5.2.1 Operation systems of operators being used for management and operation of the experiment.

5.5.2.2 The Alternative experiment application.

5.5.3 Development of the interface will be by the receiving system.

5.6 Documentation and Saving of Data

5.6.1 The supplier will manage and save an accurate database of all the information that has accumulated in the system, per system requirements, company procedures, as required by law, regulatory requirements applicable to the system, and requirements of the tender.

5.7 Data Security Requirements - per the attached Annex

5.8 Monitoring and Control of System Activities

5.8.1 The system will monitor, in an ongoing fashion, the operational serviceability of the management system, and will identify and report any malfunctions in all its components (including end accessories).

5.8.2 The system will send notice, in real-time, in respect to the disconnection or interrupted transmission of any of its components.

5.8.3 The system serviceability report and the reporting of failures will be displayed to the operator, including a description of the fault significance in respect to system capabilities.

5.8.4 The system will provide for the defining of automatic and manual alarms.

5.8.5 Fault reports will be saved to the database, as required for debriefing.

6. System Design

6.1 The supplier will execute full design of the system (HLD and LLD).

6.2 The mentioned design will be based on the following documents:

6.2.1 Tender documents.

6.2.2 A methodology document that will be provided to the supplier, within scope of his response to the tender, as subject to approval of the ordering party.

6.2.3 A summarizing document of the tender POC stage.

6.3 The detailed design process will include the following stages:

6.3.1 A startup meeting with company representatives - within scope of the meeting the supplier will be required to show a compliance table (VCRM - Verification Cross-reference Matrix) covering all requirements of the tender.

6.3.2 Study of the current situation - within this framework, the supplier will be required to run a series of interviews with factors that will be involved in the Experiment (including operators, control company, alternative application development company, various regulators within their fields of responsibility), as well as with a sampling of volunteers.

6.3.3 Submission of then design for company comments.

6.4 The design documents submitted by the supplier will cover at least the following subjects:

6.4.1 A presentation of the overall system architecture, including a presentation of the infrastructure tools that will be required, the storage environment, communication media, responsibility to data security requirements and all requirements under this agreement.

- 6.4.2 A presentation of the supplier's team for each of the project stages (design, development, installation, maintenance). A full organizational structure must be shown, including a definition of subordinations and authorities.
- 6.4.3 A presentation of a plan for completion of the development stage (including milestones and deliverables upon the completion of each milestone).
- 6.4.4 Preparation of a work plan for the design stage - said plan will include (among others) - the team assigned by the supplier, the design stages, progress milestones, and a detailed time schedule for completion of the design stage.
- 6.4.5 Presentation of a plan for execution of the acceptance tests, conditions for compliance of the system with acceptance tests.
- 6.4.6 A full plan for execution of the system trial run stage - the trial run stage will include 10 real volunteers. Conditions for success of the trial run stage must be detailed, and transition to the full operation stage.
- 6.4.7 A presentation of responsivity to relevant regulatory requirements, and especially privacy protection and data security requirements (as detailed in Annex 3 of the volume C - Data Security).
- 6.4.8 A presentation of the system installation and deployment plan.
- 6.4.9 A presentation of supplier resources that will be required for the provision of services.
- 6.4.10 Presentation of a plan for the construction of interfaces to each of the tangential systems.
- 6.4.11 A presentation of system operational contents, including - data gathering, overcoming of faults and blocks, examination of data quality, data processing methods, definition of monitoring and management processes.
- 6.4.12 A presentation of a system maintenance and handling of faults program (including: operation of a technical call center, transfer of information to operators, control procedures).
- 6.4.13 Presentation of a documentation plan.
- 6.4.14 Presentation of a separations plan at end of the contractual period.
- 6.4.15 Mapping of the risks occurring in the development process, and risk reduction steps.

6.5 Additional Instructions for the Design Stage

- 6.5.1 The supplier will be required to complete the design stage, and to receive approval of same, within 45 workdays of the agreement signing date for the entire system (hereinafter –" the design stage"). The time schedule for the design stage will include all the required for the completion of design as detailed in this section.
- 6.5.2 Within the design stage, weekly status meetings will be convened, as well as design reviews, as required to verify progress of the design process. The supplier will be required to show his progress within the scope of each status meeting.
- 6.5.3 The supplier will be required to submit drafts of the design documents to the company throughout the design stage, when requested by the company. The company will have the right to comment on the drafts, and supplier will be required to correct the planning documents accordingly. Clarified, that this process may be repeated several times, if necessary.
- 6.5.4 Within the design stage, the company will return answers to the supplier within 3 workdays of receiving a request for professional clarifications/supplements. In the event of answers received after more than 3 days as stated, the supplier will be entitled to request an extension of the timetable for said milestone, per the number of days by which the answer was delayed. The company will discuss the request and will notify the supplier in respect to its decision. Emphasized, that the supplier will not be entitled to additional

support and/or compensation in lieu of a delay in the timetable for completion of the milestone, other than as stated herein.

- 6.5.5 Upon completion of the design process, the supplier will submit to the company a final version of system design, for approval by the company. Subsequent to company approval, the plans will be defined as "Approved Design", and will be used for continuation of the development and installation process.

7. Completion of System Development,

- 7.1 The supplier will be required to complete the development of the system according to the details of the the Approved Plans (if applicable).
- 7.2 Completion means be ready for Acceptance Tests.
- 7.3 The development stage will be carried out in accordance with the approved design instructions
- 7.4 The Development stage should be completed within the timetable as established in said Approved Plans (where relevant) And not more than 3 months after the signing of the agreement.

8. Development and testing environments

- 8.1 As part of the services the supplier will be required to set up development and testing environments. The development and testing environment will be used for the application of changes to the system and for functionality tests. The development and testing environment will comply with the following requirements:
- 8.1.1 The development and testing environment will be activated as part of the development stage, from its beginning.
- 8.1.2 The development and testing environment will enable an understanding of changes to the system as applied to a matching version of the updated manufacturing environment.
- 8.1.3 The development and testing environments will contain, at least. capabilities and characteristics that will be identical to characteristics of the proposed system to which the supplier is committed within the scope of this agreement.

9. Acceptance Tests

- 9.1 Upon completion of the development stage or after obtaining approval for the approved design (As relevant), the supplier will execute acceptance tests, said according to the detailed acceptance sets provided within the Approved Plans.
- 9.2 Within scope of the acceptance tests, the supplier will check for compliance of the system with all requirements of the agreement, with the methodology document, and with the supplier response to the tender.
- 9.3 The supplier will be required to submit for company approval a document specifying the acceptance tests procedure, at least 60 days prior to the scheduling of these. The following subjects will be detailed in said document:
- 9.3.1 All scenarios of the tests, success criteria, and expected results for the system.
- 9.3.2 A time schedule for the execution of each test.
- 9.3.3 Full details of all the system elements that will be operated within the test.
- 9.3.4 The sites at which the acceptance tests will be conducted.
- 9.4 Within scope of the acceptance tests, the supplier will include among others the following tests:

- 9.4.1 The ability to receive information from volunteer vehicles.
- 9.4.2 The ability to transmit and receive information to and from the management system.
- 9.4.3 Integration between the system and alternate operator and application systems.
- 9.4.4 Readiness of the development and tests environment.
- 9.5 The company reserves the right to call for additional acceptance tests, if will be required as the result of changes occurring within the development process, versus the Approved Plans.
- 9.6 Acceptance tests will be affected in several cycles, to the extent that these will be required, as detailed in the agreement.
- 9.7 The acceptance tests will be conducted by a team common to the supplier and the company (or any factor on behalf of the company).
- 9.8 In the event that the system is found to be noncompliant by the acceptance tests that are conducted, the supplier will be granted an extension of 14 work days for correction of the deficiencies that were discovered, and for the conducting of repeated acceptance tests.

10. Deployment for Operation

- 10.1 Upon completion of the acceptance tests, the supplier will be required to prepare for operation of the system. Said preparations will include:
 - 10.1.1 Acquisition of licenses as required for use of the software programs (including licensing of the system and third-party programming, all as relevant).
 - 10.1.2 Completion of the development tool required for the system, as required to bring the system to operational state, while applying corrections reflecting comments received during the acceptance tests.
 - 10.1.3 Purchase of all the hardware required for operation of the system including End accessories and Installation accessories.
 - 10.1.4 Execution of all the required for the setup of communication media, as required for operation of the system (including cellular media, landline communications and as the case may require).
 - 10.1.5 Setup of the storage environment.
 - 10.1.6 Definition of the data security tool.
 - 10.1.7 Setup of the control system.

11. System Documentation

- 11.1 The supplier will be required to submit to the company full As Made documentation of the development stage and of the acceptance tests.
- 11.2 Said documentation will include at least the following:
 - 11.2.1 Installation and operation instructions.
 - 11.2.2 Definitions.
 - 11.2.3 All the Approved Plans documents (including updates to these).
 - 11.2.4 Details of all the acceptance tests that were conducted and the results of these.
 - 11.2.5 Training manuals.
 - 11.2.6 A quality management program and current reports.

- 11.3 The supplier will be responsible for receiving the company's approval for contents of the documentation.
- 11.4 The documentation will be submitted on appropriate magnetic media, subject to company approval.

12. Supplemental Approval

- 12.1 Upon completion of the system development process, and the execution of acceptance tests as detailed above, the supplier will submit a request for the receipt of Supplemental Approval.
- 12.2 The company will check compliance of the supplier with all requirements of the agreement, with the Approved Plans and with the work program. The company may request supplements and clarifications to these.
- 12.3 Upon completion of corrections according to comments, and the effecting of supplements, the company will issue to the supplier an approval showing completion of the system. This approval will be seen as an approval for transition of the system to the installation stage and to the system operation stage, and will be considered as conditional for the final compensation payment for setup of the system.

13. System Installation

- 13.1 To the extent that physical installation will be required of the system's end accessories - the initial installation will be effected on a volunteer vehicle, at a location specified by the volunteer (when joining the test or when replacing the vehicle), said installation to be performed by the operators.
- 13.2 The supplier will be required to support the operators within scope of the initial installation process. Said support will include all the detailed below (where relevant):
 - 13.2.1 Design of the execution of the installation process - the supplier will prepare a program for execution of the installation, said program detailing the stages that will be required for installation of the system. The supplier will prepare a program providing for the installation of at least 100 volunteers a week.
 - 13.2.2 The supply of all accessories required for installation on volunteer vehicles, and all the equipment required for the installation of these. The accessories will be supplied to the operators at distribution points throughout Israel. The supply of accessories and tools will be executed such that these will match the rate of installation specified in design of the installations.
 - 13.2.3 Technical support to operators (or factors on their behalf) upon installing. The supplier will respond to questions that may be raised during installation, within 3 minutes of being asked, said at normal activity hours (as defined above).
 - 13.2.4 As required, the supplier will send a technical representative on his behalf to the installations site, as required to assist in the resolution of issues that could not otherwise have been resolved. The technical representative will reach the installations site within 4 work hours of receiving the call.
 - 13.2.5 Execution of sample checks of the installation by the technical representative on behalf of the supplier, at 0.5% of the scope of installations. The checks will be conducted in a manner that will fully cover all the installation points.
- 13.3 To the extent that an additional installation will be required (beyond the first installation) said will be executed by the supplier at no additional cost (including the supply of end accessories that may be required for this installation). In exceptional cases, where the supplier has proved that the additional installation is required due to malicious damage by the volunteer - the supplier will be eligible for payment for said additional installation.

14. System Trial Run

- 14.1 After receiving the supplemental approval, the supplier will be required to execute a system trial run process (hereinafter - the trial run stage).

- 14.2 Within scope of the trial run, the following subjects, among others, will be examined:
- 14.2.1 Serviceability of system operation.
 - 14.2.2 Compliance of the installation system with the requirements detailed in Section 13 above.
 - 14.2.3 Ability of the system to calculate at an accuracy level as required by the above detailed requirements.
 - 14.2.4 Compliance of the control system with the technical requirements detailed in the Approved Plans document (including the receipt of raw data from volunteer vehicles, and the processing of said data).
 - 14.2.5 Serviceability of processed data transfers to operators and to alternative applications.
- 14.3 The run-in stage will be executed by a full installation of the proposed system, and its connection to 10 volunteers. The list of volunteers for the trial run stage will be provided by the company.
- 14.4 Within scope of the trial run period, the supplier will be required to provide full services, as detailed in sections 15 to 17 below.
- 14.5 The trial run process will be continued for one month.
- 14.6 Towards end of the trial run stage, the supplier will be required to submit a summarizing report where compliance of the system with requirements of the approved plans will be detailed. Within scope of the report, the supplier will be required to refer to all test requirements as detailed in the approved plans, and compliance of the system with these.
- 14.7 To the extent that the company will find that the system has not successfully complied with the end of trial run stage requirements, as detailed in the approved plans (hereinafter: "requirements of the trial run stage"), the company will detail in writing, within a document to the supplier, any non-compliances relating to requirements of the trial run stage, and a postponement period of no more than 14 days will commence at each time (hereinafter: "postponement period"), within which the following conditions will apply:
- 14.7.1 The postponement period will commence immediately after receipt of the list of non-compliances from the company.
 - 14.7.2 Within the postponement period the supplier will execute, at his expense, all the necessary activities for successful compliance with requirements of the trial run stage.
 - 14.7.3 The supplier will notify the company in respect to a new date for compliance of the system with requirements of the trial run stage, that will be at the latest immediately at end of the postponement period, and at this time an additional test will be run by the company in respect to system compliance with trial run requirements.
- 14.8 Without detracting from the aforesaid, and if no essential instances of non-compliance are discovered, but rather non-compliances that are not of an essential nature and that can be repaired within a reasonable time schedule, the company will be allowed, but not obliged, at its discretion to approve successful compliance of the system with the trial run stage, as subject to a commitment to repair all the required within a short time period as approved by the company.
- 14.9 If the system fails three successive test cycles at end of the trial run stage, the company will have the right to serve notice to the supplier in respect to discontinuation of the agreement, in view of the fact that said scenario will be seen as a basic breach of contract.
- 14.10 Upon repair of the system as stated, and upon compliance of the system with all the agreed requirements, the company will approve in writing to the supplier that the system has successfully complied with the trial run stage requirements.

15. System Operation and Maintenance

- 15.1 The supplier will be required to operate and maintain the system in a full manner, throughout the contractual period, per guidelines of the agreement.
- 15.2 Operation and maintenance services will include all the detailed below:
 - 15.2.1 System operation will include the gathering of information, its processing and its transfer in processed condition to Alternative operators and Alternative applications.
 - 15.2.2 Software updates, current system updates and the correction of software bugs. The supplier will provide a software update within 30 workdays of the publication of a software update by the manufacturer.
 - 15.2.3 Execution of current system serviceability and functionality tests, per manufacturer instructions and according to a maintenance program.
 - 15.2.4 Supply of spare parts for the system (to the extent that said is relevant).
 - 15.2.5 Transferring the information every 5 minutes to the systems listed in clause 5.5 above during the experiment hours and within the experiment coverage areas.
 - 15.2.6 Storage of all data as required for the system.
 - 15.2.7 Execution of current backups to the system.
 - 15.2.8 Management of the data security system and the maintenance of privacy according to the final architecture of the system, that will be included in the Approved Plans and as required by law.
 - 15.2.9 Operation of a technical call center as assistance for the operators (further details in section 16 following).
 - 15.2.10 Repair of system faults, as detailed in section 17 following.
 - 15.2.11 Current documentation of maintenance activities in the system, including a log of all activities in the system, failure reports, activities for the prevention of repeated failures.
- 15.3 Other Instructions related to operation and maintenance services:
 - 15.3.1 Maintenance services shall be provided by remote control, to the extent possible.
 - 15.3.2 Operation and maintenance services will be provided in a manner that will not affect current execution of the experiment.
 - 15.3.3 Maintenance services will be affected by a dedicated supplier appointed team.
 - 15.3.4 To the extent that subcontractors will be used for the execution of operation and maintenance services, these will require preapproval of the company.

16. Technical Assistance Call Center

- 16.1 The supplier will be required to provide a technical call center as backup for the operators.
- 16.2 Support at said call center will include, among others:
 - 16.2.1 Current responsivity at Tier 2 level to questions referred to the service center by operators, as received from volunteers, in all associated with operation of the system and the results received from the system.
 - 16.2.2 Assistance by operator representatives in respect to installations and definitions.
 - 16.2.3 Assistance in the event of issues and malfunctions.
 - 16.2.4 Current training of operator's representatives in operation of the system.

- 16.3 In the event of need, escalation will be applied to service calls, through the diverting of calls to manufacturer support centers.;
- 16.4 The service level provided at the technical call center will be as follows:
- 16.4.1 Calls to the technical center will be by phone or email.
 - 16.4.2 The center will provide support in Hebrew.
 - 16.4.3 The center will provide human responsivity during normal work hours.
 - 16.4.4 The response time of a professional factor on behalf of the supplier (a person with technical capabilities for the handling of complex malfunctions) will not exceed 30 minutes from the moment of call received at the call center, within normal work hours.
 - 16.4.5 The response time for a response by a manufacturer professional factor - up to 24 hours from receipt of the call, within normal work hours.
- 16.5 The supplier will be required to document, by a dedicated computerized system, all the calls received at the technical call center (including the documentation of call subject, handling status, time schedules and the handling and response provided). The documentation system will require prior approval by the company.
- 16.6 Non-compliance with the service levels as detailed in section 16.4 above will be considered a regular fault, as detailed in section 17.1 following.

17. Handling of Faults

17.1 The supplier will be required to affect the repair of faults per the service levels as detailed following:

Severity level	Failure Type	Max Time for Start of Handling	Agreed Compensation
1	Critical fault - a fault that totally disables the system.	Up to two hours, during normal work hours.	NIS 200 per hour (
2	Urgent fault - a fault that significantly impairs activities of the system or a regular fault that repeated more than 3 faults a month.	Up to four (4) hours for faults that are discovered during normal work hours, or three (3) hours on the subsequent work day for faults that are discovered outside regular work hours	NIS 100 per hour. calculated for work during regular activity hours.
3	Regular fault - a fault that is not critical and is not urgent.	By the end of the day following the day when the fault was reported.	NIS 20 per hour. Calculated for normal activity hours. To the extent that more than 50 faults a year are accumulated, the agreed compensation sum will be doubled retroactively, from the first regular fault.

17.2 In the event that the supplier will not be able to handle faults - the supplier will be committed to the arrival of a manufacturer representative to Israel within two (2) work days.

18. A Team on Behalf of the Supplier

18.1 The supplier will provide the required services by means of a team on his behalf and on behalf of the manufacturer (hereinafter - "the team").

18.2 The supplier will place all the team members as required at the disposal of granting of services and as required for compliance with all requirements of the tender.

18.3 The team will be introduced after signing of the contractual agreement, for company approval.

18.4 Within the design and setup period, and up to receiving of the supplemental approval, the supplier will provide a minimal team as detailed below, that will provide for the accumulated conditions as detailed below:

18.4.1 Project Manager - with overall responsibility for the project, including all stages, and for representation of the supplier towards the company.

18.4.2 System engineer - a representative on behalf of the manufacturer, who will accompany the development process (if relevant) and the heart of the acceptance and trial run tests.

18.4.3 A development team (if relevant).

18.4.4 Customer service person - for managing of the installations process (within the trial run stage and the full operation stage), and as liaison towards the operators.

18.4.5 Data security supervisor - for the managing of all data security activities and for the preservation of privacy. Will be responsible for management of the database to the extent that said activity will be required.