

Installation of a turnstile-type barrier in place of the existing boarding pass check counters at Terminal 2

TECHNICAL SPECIFICATION

1. Existing situation and action plan

In connection with the plans of SOF Connect AD for the renovation and transformation of Sofia Airport and its transformation into a 5-star regional hub with a high level of passenger service, as well as in order to optimize the process and increase the capacity of Terminal 2, it is necessary to install a turnstile-type barrier in place of the existing boarding pass check counters at Terminal 2.

Sofia airport wants to equip the pre-security checkpoint with a state-of-the-art passenger automation solution. Sofia airport will need the most modern passenger automation solution with a global footprint of implementations worldwide. The solution must be future proof to combine e-gate solutions for different purpose (pre-security, boarding, lounge etc.) as per Terminal 2 development master plan. It must be touch point application for pre-security supporting comprehensive e-gate control and supervision functions, exception handling on mobile or desktop applications, central management, monitoring and reporting. It must support an offline validation mode that grants highest operational stability.

The turnstiles should form six (6) passing lines, thereby greatly increasing the speed and efficiency of service.

The system must have software application integrated, which reads the bar code on boarding passes and ensures that the boarding pass is valid, as well as allowing employees to pass after checking the pass on an RF reader. The passenger will insert his/her own card to read the validity and once validated the turnstile will allow him/her to pass.

The turnstile system shall consist of six (6) aisles. Five (5) of these will be for passenger passage and the sixth will be for employee and wheelchair passage. The latter shall be equipped with 2pc employee pass readers, which shall be capable of being connected to the Access Control System.

2. Scope of the project

At a minimum, the following activities are included in the scope of this project:

- Delivery of turnstile system
- Installation of turnstile system and any other necessary infrastructure needed to develop the passage of the passengers
- Configuration and installation of the software required for the system
- Installation and configuration of Servers, PCS, network elements. The use of existing Sof connect servers and infrastructure for cost optimisation is recommended.
- Integration with existing SITA BGR solution or AODB

- Project management of the implementation
- Helpdesk Services
- Maintenance services and spare parts
- Training services for the support of the system

The project must be delivered in a turn key basis including all necessary connectivity and power supply elements as well installation and connectivity works in compliance with the airport terminal technical and IT requirements

3. Technical requirements for the equipment

3.1. The turnstile system to include 6 Porta-Q gangways:

- 5 standard size aisles
- 1 passage for employees and wheelchairs

3.2. Mode of operation of the passages:

- 5 passages - working one way.
- 1 passage for employees and wheelchairs - working both ways

3.3 Physical integration into turnstiles and delivery of:

- Combined USB scanners for 1D, 2D and QR code or similar - 6 pieces to
- RF readers 125 kHz or similar- 2 pcs
- Possibility of emergency opening

3.4. The system solution must:

Read the bar code on the boarding pass and ensure its validity; open the turnstile after reading the boarding pass or service pass.

The automated pre-security gate can system will replace the existing manual boarding pass control and allows passengers to board themselves.

The Automatic self-service units located before security area and /or at boarding gates and or at the lounge access support airport and airline staff in boarding/checking processing in maximum processing time of 3 secs for 95% of the cases.

The solution must be tested in harsh airport environment, the false rejection rates must be less than 1 %.,

The contractor must ensure an overall system a yearly availability of 99,99% with the proper spare parts and maintenance service levels preferably with a local partner

The unit must be equipped with an integrated full-page boarding card and ID-documents reader as well as NFC and RFID mediums and biometric devices, a display for passenger information and a printer for seat imprint. The must be future proof for accommodations future seamless travel technologies

2D-barcodes must be scanned from boarding card, home-print or mobile devices.

Provision for separation of one or two units for fast-track passengers must be available. This functionality must be programmable on demand. First / Business Class, VIPs and airline staff can be managed separately, reducing waiting time

Passenger should also be informed of last-minute seating changes with print-out as an optional requirement.

The solution must provide also detailed reporting to the monitoring and management solution in case of tailgating, attempt of trespassing or passage in the wrong direction.

The automated self-service gates must have the following functionalities.

- The gate must be a self-service device.
- It must be used by passengers with valid boarding token.
- The use of the gate must be self-explanatory and easy to handle.
- The communication and interaction with the passenger using this system must be simple and efficient.
- The gate can be configured as single, double, and multiple lane arrays.
- The short and quick process time of the unit must guarantee smooth, fluid, and fast access procedures, providing fast PAX processing at the access point.
- All units must be able to store log files.
- Must foresee easy integration of future biometric components
- Takes under consideration the use of small children and PRM passengers
- The sensor barrier must be equipped at least two low energy servo-positioning drives in accordance with EN 16005 or similar which guarantee an outstanding personal safety.
- In case of an unauthorized passage in opposite direction an alarm will be triggered. The sensor system also monitors the rotation angle of the barrier elements and serves as safety unit. Detection of people crawling underneath the barrier element, recognition of trolleys, jackets/coats and hand luggage must be considered and integrated in the unit.
- MCBF (mean cycles between failure): >7 Mio. Cycles,
- Flow rate: >10 PAX/min.
- In case of power failure, the unit must be passed freely in both directions. Once the power is back the gate executes an automatic reset without any required manpower. The unit must be locked in any position and opens even under load (personal safety in case of panic). Several parameters and settings can be changed and customized for each gate and location.
- If during an authorized passage an unauthorized passage from the opposite direction is detected, an alarm will be triggered.
- A counter of the number of passages must be integrated in the software of the gate.

Software Specifications

The installed software must offer access control to any dedicated airport area by:

- Checking the integrity and validity of the presented boarding pass or other media
- Ensuring duplicate passes are recognized and rejected
- Controlling access according to the list of active flights or even controlling access

- according to passenger reservation data
- The rules for validation of boarding passes should be configured within the system. There should be great flexibility in combining and setting up the rule framework. Rule frameworks may consist of the following checks i.e but not limited:
- Check of the departure airport (avoid that boarding passes for the connecting flight will be used for verification)
- Check of the flight date
- Check of the travel class and passenger status (e.g. frequent flyer, specific membership tier of a frequent flyer program etc.)
- Check of potential seat conflict
- Check for duplicate boarding pass (considering grace times)
- Check check-in status flag on boarding pass
- Check for valid airline (limitation of the access to a group of airlines)
- Check for valid destination (limitation of the access to a group of destinations)
- Check for minimal and/or maximal time prior to departure
- Check for valid flight with AODB
- Check for cancellation status of flight
- Check for any custom definable rule
- Check PNR code against an imported PNL
- Forward boarding passes to airline DCS for external validation via a web service interface

Client management, monitoring and reporting

- All connected clients can be centrally managed based on configuration profiles.
- The system provides real time monitoring of e-gate and desktop clients within the server web based GUI.
- Each boarding pass scan in must be recorded in a database. The parsed barcode data must stored in individual fields together with the timestamp, scanning position and evaluation result. Based on that information reports, must be created as standards. The system should allow any other report to be drilled from the database.

4. Additional requirements

The equipment offered and design must be modular, ergonomic and in line with the terminal design.

There must be a set free button enables opening of the barrier elements for manual boarding process controlled by staff. The set-free button is located at the gate exit side.

In the proposals of the bidders to be provided brochures from the manufacturer in original l or translation into Bulgarian, certifying the compliance of the proposed equipment with the above minimum technical requirements.

The bidder must have accomplished 5 similar projects in airports of 5-10 mio pax per year, the last 5 years, at minimum.

Existing local presence in Bulgaria is considered a plus.

The period of performance, including delivery, installation, setup, commissioning, and training for operation of the equipment shall not exceed 140 calendar days from the date of conclusion of the contract.

The equipment and materials supplied under the project shall be under warranty and shall include a minimum warranty period of 24 months from the date of signing of the final acceptance report.

Upon request for warranty service by the Customer, the Contractor shall dispatch a team to inspect and assess the technical problem within 24 hours of receipt of a request during the working week (Monday-Friday) and within 48 hours of receipt of a request during official non-working days and weekends. Technical faults in the equipment shall be rectified within 72 hours of their detection on site. If a problem cannot be rectified within this time limit, a component with similar technical parameters shall be made available for temporary use free of charge to ensure uninterrupted operation.

INSTRUCTIONS TO TENDERERS

General Requirements and rules of the Tender

1. Compliance with all terms and conditions of this Tender by the tenderer is mandatory. Failure to satisfy any of the terms and conditions, or to provide any required information related to a Proposal (technical and financial as detailed below), will be sufficient basis for SOF CONNECT to disqualify the tenderer.
2. Any questions by the tenderers may be addressed for the attention: according to the invitation.
3. Prior to the submission of a Proposal, a SOF CONNECT's site visit shall be available, up to three days before the deadline for receipt of offers for the interested tenderers. Site visit applications shall be made by contacting Mr Georgi Donchev during working hours.
4. Proposals shall be valid for a minimum of three (3) months from the submission deadline.
5. The technical proposal shall include:
 - Company profile, date of establishment, details of services offered, organizational structure, links with parent company and subsidiaries (if applicable). Company profile should be submitted also in electronic format.
 - Evidence of experience in projects of similar scope and size and list of key clients of the past two years. For selected projects please provide the scope, client, services offered, duration and budget.
 - The Contractor should include the following technical information:
 - Implementation Study. Detailed description of the technical solution that the Contractor is proposing and method statement for the execution of works.
 - Technical Descriptions, Specifications and Certificates of the required installations and selected Equipment.
 - Equipment Manuals, Relevant Certificates Data Sheets, Manufacturer's Catalogues.

- ISO of Equipment, if applicable.
 - ISO of System, if applicable.
 - List of the equipment to be utilized during the physical installation.
 - Project Plan.
 - Operation and maintenance manuals
- The Bill of Quantities without cost indication,
 - All information necessary to enable a detailed assessment against the requirements in the attached Scope of Works.
6. The financial proposal shall include a lump sum fixed price which shall be further broken down as per the enclosed bill of quantities (BoQ). Prices shall be in Euro or BGN, excluding VAT. This information will be treated by SOF CONNECT as confidential.
 7. Technical Proposals will be opened first and assessed.
 8. SOF CONNECT will review and evaluate the Proposals, as well as any supplementary information it may obtain during the evaluation process through clarifications with Tenderers.
 9. The assessment criteria are listed below (not in order of importance):
 - ✓ Overall compliance to technical requirements
 - ✓ Financial Proposal
 10. Financial Proposals, of the technically accepted proposals, are opened lastly.
 11. When the evaluation is completed, SOF CONNECT will proceed with negotiations as it sees fit in its fair judgement with a view to concluding the Contract.
 12. After the submission of a Proposal, no amendment or rejection of a term included in the Proposal is accepted.
 13. Proposals that are vague or provisional or include deficient or inaccurate data or ambiguities or reservations are rejected as unacceptable.
 14. SOF CONNECT will seek clarifications and/ or improvements on the tenderers Proposal at any stage of the Tender.
 15. The award shall be made in accordance with a contract. If tenderers' own terms, conditions or specifications are referred to or included with their Tender then they will be considered by SOF CONNECT as null and void if there is any possibility that they conflict with this it.
 16. SOF CONNECT shall not bear any of the tenderers' costs.

17. All applicable regulations and standards (Bulgaria, European Union) must be obeyed.
18. SOF CONNECT shall not be responsible for, nor be bound by, any oral instructions or interpretations or explanations provided by SOF CONNECT's officials or its representatives.
19. SOF CONNECT shall award the complete Tender to one tenderer.
20. The execution of the Tender does not presuppose obligatorily the conclusion of an agreement.
21. All information provided to a tenderer by SOF CONNECT must be retained in confidence and not be disclosed to any third party except with the express prior written authorisation of SOF CONNECT. The tenderer acknowledges that the documents are commercial, confidential in nature and that SOF CONNECT retains the right to seek damages for their unauthorised disclosure.
22. SOFIA CONNECT reserves the following rights:
 - To suspend or cancel at any stage or repeat or declare fruitless the Tender partly or in whole or cancel the results of the Tender and proceed to negotiations in accordance to the cases provided in the Union Law or not to proceed to the proclamation of the Contractor or/ and the conclusion of an agreement. In all such cases, tenderers are not entitled to any compensation by SOF CONNECT;
 - To carry out indicative verification checks on the submitted data.
23. Reasons for rejecting a Tenderer, regardless of the stage at which is the tender, may include but not be limited to the following:
 - If, in the judgement of SOF CONNECT, the Tenderer has been, or might be placed in a position where the Tenderer's commitment in the execution of the Project may be compromised.
 - Evidence of collusion, directly or indirectly, among Tenderers in regards to the amount, terms, or conditions of this Tender.
 - Further to the above, the Tenderer, or any entity on which the Tenderer relies, will be excluded from the Tender if they have been found guilty by a competent court of grave professional misconduct, in case that they have proceeded in actions or omissions inter alia capable to damage the reputation, the clientele, the activities or the future of SOF CONNECT, and/ or capable to damage the honour or reputation of SOF CONNECT's officials and employees, by spreading or supporting, inter alia, false news or purporting to defame or to insult SOF CONNECT or its employees, or has been issued against such Tenderer or entity on which the Tenderer relies a court decision as a result of a litigation of any kind with SOF CONNECT, or in any other action or omission, which as per business ethics, business common practices and according to good faith constitutes a professional misconduct.

