# JSC BELGRADE "NIKOLA TESLA" AIRPORT 11180 Beograd 59



# TENDER DOSSIER FOR PUBLIC PROCUREMENT OF "BAGGAGE RECONCILIATION SYSTEM - BRS" No.8/2013

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MEMEBERS OF THE COMMITTEE AGREED TO TENDER DOSSIER FOR SUPPLY OF "BAGGAGE RECONCILIATION SYSTEM - BRS" No.8/2013

1. Nenad Sakić,

President

2. Ivana Elek,

Member

3. Ksenija Kovačević,

Member &

4. Milivoj Cimeša,

Member

5. Milorad Kosanović,

Member, P.P.Office

Executive Director

Dejan Milovano

# 1. GENERAL PROCUREMENT INFORMATION

INFORMATION ON THE PURCHASER:					
INFORMATION ON	THE PURCHASER:				
Name of Purchaser:	Joint-Stock Company Belgrade Nikola Tesla Airport				
Address:	11180 Beograd 59				
Address (city and municipality):	Belgrade, Surčin				
Registration Number:	07036540				
TIN number:	100000539				
Activity code of the	5223				
Internet address of the Purchaser	www.beg.aero				
Director or a person authorized to sign the Agreement on Public Procurement:	N Velimir Radosavljevic				
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GENERAL PUBLIC PROC	UREMENT INFORMATION				
The subject of procurement services	"BAGGAGE RECONCILIATION SYSTEM - BRS"				
Public procurement number	8/2013				
The type of public proc. procedure	OPEN PROCEDURE				
Implementation of the procedure	The procedure is implemented for conclusion of the public procurement contract				

# 2. SUBJECT OF PUBLIC PROCUREMENT DATA

Description of the subject of procurement procurement:

"BAGGAGE RECONCILIATION SYSTEM - BRS" No. 8/2013

Name and designation of the general acquisition vocabulary:

Information system - 48810000 Airport equipment - 34960000 For application on airports – MA 10

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# 3. TECHNICAL CHARACTERISTICS (SPECIFICATIONS)

# GENERAL CHARACTERISTICS OF THE BELGRADE NIKOLA TESLA AIRPORT AND THE FIELD OF APPLICATION OF "BAGGAGE RECONCILIATION SYSTEM - BRS"

Belgrade Nikola Tesla Airport is a joint-stock company which is organized in 8 organizational units (department) headed by the Executive Board. Ground Handling Department is an integral part of the Company's organization.

#### Infrastruktura aerodroma

- AIP Srbija/ Crna Gora: Aircraft parking/ docking chart ICAO ( AD 2 LYBE 2.2-1/ 13MAR09)
- Passenger Terminal
  - ✓ Terminal 1 (18 000m2) used for charter traffic and low cost air carriers
    - 14 baggage and passenger check-in desks (excluding CUTE platform)
    - departing sorting room (1 carousel, VanDerLande)
  - ✓ Terminal 2 (32 000m2) in operation/ 3 levels
    - 33 baggage and passenger check-in desks (11desks/ 3 islands in line set up)
    - 1 check in desk for oversized baggage
    - department sorting room (3 carousel, optimal capacity 600 bags/h)
    - arriving sorting room (4 carousel)
    - baggage claim hall
    - transit zone
  - ✓ VIP Terminal (550m2)
  - Cargo Terminal (4500m2)
  - Runway 3400m\*45m
  - Aprons : A, B, C
  - Aircraft parking positions
    - 16 positions equipped with air bridges
    - A1, A6 A10 with related waiting rooms
    - A2 A, C1 C6 with related double waiting rooms A2/3, A4/5, C1/2, C3/4, C5/6
    - 7 positions back out from Passenger Terminal, without air bridges
    - 15 positions for general aviation aircrafts
      - \*Positions for aircraft parking / characteristics, are intended for the following aircraft types ICAO Code A, B, C, D, E
  - Fuel tanks
  - Fire-rescuing unit
  - Prevention and Maintenance of surfaces and resources
  - CAT IIIb in function for landing on threshold 12
  - 100% X- ray control of passengers, baggage and cargo
  - CUTE platform (SITA)
  - Transport system (VanDerLande), optimal capacity per island for passenger and baggage check-in 600 bags/h, Terminal 2
  - FIDS AMS6.0, SITA
  - WorldTracer (technical approach via DCS GAETAN)
  - Sitatex (operative exchange of "Type B" messages via IPVPN SITATEX v7)

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- Wireless network WLAN or data exchange tru mobile network (GPRS, WAP, HSPA etc) it will be implemented by Airport Nikola Tesla Belgrade
- Baggage message sistem it will be implemented by Airport Nikola Tesla Belgrade

#### Statistic data

Realised traffic is shown in the following table (total pax and movement number) for period from 2008 to 2012.

Table 1

Realised traffic	2008	2009	2010	2011	2012
no. of pax	2658000	2395182	2713020	3113125	3369712
no.of movements	48439	44100	47803	49571	49118

<sup>\*</sup>number of departing pax is averagely 50% of total number of pax from the table

Number of realised movements in the peak week of August 2012 is shown in the following table: Table 2

Movements	Morning (07.50 - 08.50)	Noon (12.50 - 13.50)	Evening (18.20 - 19.20)
ARR	5	7	11
DEP	9	10	8
Total	14 (1GA)	17(5GA)	19(3GA)

<sup>\*</sup>GA - generalna avijacija

Peak week for 2008/ 2009/ 2010 per number of pax and number of movements is shown in the following table:

Table 3

2008	
173 movements/day (28th week of 2008)	
11 575 pax/ day (31st week of 2008)	
2009	
167 movements/day (29th week of 2009)	
10 372 pax/ day (31st week of 2009)	
2010	
172 movements/day (29th week of 2010)	
11 958 pax/day (32nd week of 2010)	
2011	
195 movements/day (35th week of 2011) 15 438 pax/day (33nd week of 2011)	
2012	
204 movements/day (32th week of 2012)	
16 243 pax/day (32nd week of 2012)	

Number of checked-in baggage for 2008 - 2012 per months is shown in the following table (Terminal 2): Table 4

	Baggage statistics in 2008	Baggage statistics in 2009	Baggage statistics in 2010	Baggage statistics in 2011	Baggage statistics in 2012
Month	Checked-in baggage				
Jan	95.226	81.354	88.636	86.561	98.723
Feb	69.616	59.808	62.731	68.778	68.915
Mar	78.643	67.879	70.107	76.158	82.957
Apr	89.657	81.268	87.206	93.117	105.356
May	109.633	86.354	90.700	106.704	111.746
Jun	127.258	114.470	117.553	119.775	130.698
July	163.455	142.551	149.797	156.872	157.005
Aug	172.962	153.381	160.014	168.369	179.109
Sep	127.592	112.139	125.215	135.014	144.396
Oct	92.780	86.534	97.436	112.228	117.714
Nov	86.759	70.630	78.858	92.001	88.330
Dec	69.499	74.850	79.423	108.906	93.279
Total	1.283.080	1.131.218	1.207.676	1.324.483	1.378.228

Total number of checked-in baggage to total number of pax ratio for 2008/ 2009/ 2010 is shown in the next table (Terminal 2):

Table 5

Year	2008	2009	2010	2011	2012
bag/ passenger					
ratio	0.97	0.94	0.89	0.81	0.80

<sup>\*</sup>At 5 Aug 2012, 857 pcs of transfer baggage was dispatched

# Ground handling department- organizational structure and implementation area of the public procurement subject

Ground handling department consists of the following organizational units:

Cabinet:

- Department director
- Administrative employee
- I Passenger and baggage handling sector
- IIRamp handling sector
- III Cargo handling sector

Planning for human resources and equipment according to named organizational scheme of Ground handling department with regard to Passenger and Baggage handling Sector

#### Users field:

- Passenger and baggage handling Sector Super users
- baggage handling service

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# System Users

- ICT Department

System Administrators

\*Note: number of users will be additionaly agreed during the sistem implementation

# **Current job organization**

Number of employees needed for baggage reconciliation process

Number of employees needed per job type in sorting rooms of Terminal 2 according to analysis for the Summer season 2013

Departing sorting room terminal 2

Operative time	Foreman	Transport worker	Total number of employees engaged
5.30 - 7.00	3	4	7
7.00 - 10.00	3	6	9
10.00-17.30	5	6	11
17.30 - 22.00	3	5	8
22.00 5.30.	1	1	2

Arriving sorting room

Operative time	Foreman	Transport worker	Total number of employees engaged
5.30 - 6.00	1	5	6
6.00 - 7.00	1	4	5
7.00 - 10.00	1	4	5
10.00 - 15.00	2	4	6
15.00 - 19.00	2	4	6

Departing sorting room terminal 1

Operative time	Foreman	Transport worker	Total number of employees engaged
5.30 - 7.00	2	2	4
7.00 - 10.00	1	1	2
10.00-17.30	2	3	5
17.30 - 22.00	2	2	4
22.00 5.30	1	1	2

#### Drivers

Operative time	Total number of employees engaged
5.30 - 7.00	6
7.00 - 10.00	6
10.00-15.00	7
15.00 - 19.00	5
22.00 5.30.	2

# Note:

One foreman can simultaneously perform baggage reconciliation for three flights in real time (current state).

In peak hour it is necessary to plan minimum 3 foremen and 3 workers per one island for flights of foreign air carriers (Island 100 and Island 200)

#### I General characteristics

Planning for human resources and equipment according to flight timetable - current state:

- seasonal planning (Winter/ Summer flight timetable)
- manual resource distribution per days of week for valid season (Winter/ Season)
- analysis of necessary number of resources and infrastructure capacities according to daily operations (manual planning of resource per hour)

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- manual calculation of necessary number of resources (human and equipment) subject to working position/ flight timetable planning and distribution of resources subject to rules, working procedures, contracted obligations etc.
- manual calculation of effective work subject to planned distribution of resource work (labour force)
- daily traffic monitoring and task allocation to resources is done via web application, which is integral part of FIDS system (Flight Information Display System)

#### **Il Planning centres**

#### Sorting room chief

- Organizes and controls operations in baggage sorting rooms
- For the purpose of periodical reporting on section operation results and other analysis
- Makes and administers list of arrivals at work of Baggage handling section
- Determines priority jobs; plans and controls their performance
- Controls working and technological discipline, checks respect of instructions from local procedures and company manuals, instructions on special security measures
- Does the job of sorting room brigadier, when it is needed
- Administer evidence of ULD equipment of air carriers
- Updates daily operative plan
- Distributes all requests per operative needs

#### Sorting room brigadier

- Plans, organizes and controls operations of baggage claim, sorting and measuring in sorting room
- Make registers on state of ballast bags, ordered salt and urea
- Performs control of work attendance
- Plans, organizes and controls operations of baggage transport equipment manipulator
- Performs job of sorting room foreman, if needed

# Sorting room foreman

- Organizes operations of baggage claim and sorting
- Makes necessary documentation and register of baggage measuring
- Make register of employee engagement on baggage sorting and claim
- Hands out and measures ballast
- Performs job of baggage transport equipment manipulator, if needed
- Performs other jobs upon order of Sorting room brigadier

## Transport worker

- Baggage manipulating- baggage transport, loading and unloading (trolleys, containers)
- Consignment identification
- Performs other jobs upon order of Sorting room brigadier

#### Baggage transport equipment manipulator

- Manipulates basic airport equipment (tractor, electro tractor)
- trolley towing away from sorting to measuring and making of towing train,
- baggage towing away to parking position and collecting of empty trolleys on apron subject to aircraft type and allocated parking positions
- Performs loading, unloading and sorting of baggage
- Performs other jobs upon order of Sorting room brigadier.

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#### Location and infrastructure

#### Departure sorting room Terminal 2

- 3 circular carousel (VanderLande) of optimal capacity 600 bags/h. Each of them is connected with check in island in order 100, 200, 300
- carousel no 1 is used mostly for JAT Airways flights (11 counters)
- carousels no 2 and no 3 are used for flights of foreign air carriers (each 11 counters)
- acceptance of oversized baggage, counter 27, the counter is not directly connected with transport system

### Arrival sorting room Terminal 2

- 4 carousel (VanDerLande)
- upon aircraft disembarking, all arriving baggage is sent into arriving sorting room of Terminal 2. During hand out, separation of transfer baggage is carried out (in case it was not previously separated during disembarking on parking position of arriving aircraft) for which additional checking is done by security department agent and it is sent as security checked into departing sorting room for the purpose of reconciliation and sending to parking position of departing aircraft in subject.

#### Departure sorting room Terminal 1

- charter air carriers
- low-cost air carriers

#### Standards

- Minimum connected time 45min (Airport Belgrade)
- Non-dispatched baggage 2/1000/month (Airlines service level agreement)
  - in 2010, 1.24/1000pax (bagg message report, SITA)
  - in 2011, 1.44/1000pax (bagg message report, SITA)

#### Description of working process in sorting rooms

Depending of aircraft type, baggage can be packed:

- on trolley (bulk version)
- in ULD equipment (containers)

Foreman gets the data on equipment type which will be used on aircraft in subject from Balancer of aircraft allocated for flight in subject latest -135' before STD. Also, balancer of aircraft submits the following:

- Number of containers which will be used (in case it is done in ULD version)
- maximal number of collies which can be loaded into container
- manner of separation of baggage into containers / trolleys according to baggage categories

Note: For certain air carriers demanding this service, (for example Alitalia and Swiss Air) Supervisor of passenger and baggage check-in notifies Sorting room foreman about the flight in subject regarding expected number of transferring baggage held on the same flight number, in order to sort the baggage into special container / trolley.

Upon obtaining of necessary information from Aircraft balancer and Supervisor of passenger and baggage check-in, Foreman gives an order to Aircraft equipment manipulator to place equipment for loading on positions around carousel. Transport worker places on each container / trolley a piece of Baggage record card — Bingo list where transport workers stick scraps of baggage tags:

Each specimen of Bingo list must contain the following data:

- ✓ Flight No. number of flight
- ✓ Dest destination

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- ✓ Date
- ✓ Container/Trolley number
- ✓ Bag Category category of baggage loaded into container / trolley (local, transfer, short....)

Per order of Sorting room brigadier / foreman, Baggage transport equipment manipulator places empty trollevs / ULD equipment on positions around carousel.

Trolleys that are used must be marked:

- √ by ordinal number
- √ by trolley weight (mass)

Containers are marked by ULD tags subject to category of baggage which will be loaded. ULD tags may be different and contingent upon air carrier's request

It is necessary to write the following data on ULD tags:

- √ ID code
- √ destination (three-letter IATA abbreviation)
- ✓ flight no.
- √ number of baggage collies loaded into container
- √ baggage category
- ✓ Container gross mass (only on air carrier's request)

Baggage dispatch operation means baggage sorting (separation) and loading onto loading equipment in order to send it to the position where aircraft dispatch is carried out.

Baggage sorting in performed according to baggage tags. Basically baggage tags are sorted on:

- 1. Basic baggage tags Basic baggage tags are "travel documents" of baggage as they contain data on flight number and destination(s) up to which it is checked-in. According to this tag baggage is sorted according to flight. This tags can be:
  - a) Interline When baggage is checked-in only to the next destination(local baggage)
  - b) Online when baggage change more airports till the final destination (transfer baggage)
- 2. Additional baggage tags Additional baggage tags represent instruction for baggage manipulation, i.e. they categorize baggage according to passenger / baggage status. Baggage sorting per category, determined upon air carrier's request, is performed according to these tags (priority, short connection, transfer, UM, WCH, fragile, heavy)

The purpose of baggage sorting is passenger-baggage reconciliation on a flight, which is the base for:

- ✓ flight security;✓ fast and efficient aircraft handling;
- ✓ easier loading/unloading in line with air carrier's request.

On the basis of information obtained from aircraft balancer Foreman gives instruction to Transport worker on the manner in which baggage should be sorted in containers / trolleys.

For each flight Foreman makes "List of registration of measured baggage on the flight" which represents controlling list:

This list should contain the following data:

- ✓ ordinal number in DOP in (Daily Operative Plan)
- √ flight number
- ✓ destination✓ STD (departure time according to flight schedule)
- ✓ ATD (acctual departure time)
- ✓ aircraft parking position

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- √ aircraft registration
- ✓ data on reception of the first / last baggage (from / till)
- √ time of reception of LMC baggage
- ✓ baggage dispatch time and number of trolley / container sent on position
- ✓ name of transport worker foreman in charge of the flight in subject
- ✓ name of transport worker who worked on baggage handling sorting for the flight in subject
- ✓ name of airport equipment manipulator on flight in subject
- ✓ code of SPV on dispatch of aircraft in subject (data from the screen)
- ✓ ordinal number of trolley / container
- ✓ category of baggage loaded on trolley / in container
- √ number of baggage collis loaded on trolley / container
- ✓ measured trolley / container weight
- ✓ note on possible irregularities (data in detail)

During baggage sorting on trolleys / in containers transport worker unsticks scrap of baggage tag and sticks it on the list "Baggage record card" which facilitates baggage control and tracing in case of possible irregularities (difference in baggage number)

Bingo list with ULD versions is sent on position with baggage. For aircrafts where baggage is sorted on trolleys, BINGO list stays in sorting room (or it is, on request of aircraft handling SPV, sent on position. SPV is obliged to return the list in sorting room immediately after baggage control on position is finished ). In this manner register of baggage number on trolley / in container is made and baggage state is compared with data of Check-in Balancer and Supervisor on the flight in subject.

During baggage sorting on trolley the care should be taken of the following:

- √ instruction of aircraft balancer on baggage sorting manner
- ✓ maximal number of baggage collis on trollev which may be 30.
- √ different baggage categories must not be mixed on one trolley

During baggage sorting in containers foreman of transport worker must take care of the following:

- ✓ instruction of aircraft balancer on number of containers necessary for flight and baggage sorting.
- ✓ maximal number of baggage collis which can be loaded in container (instruction of aircraft balancer )
- ✓ different baggage categories must not be mixed in one container (exemption may represent air carrier's request)

Oversized baggage is baggage which cannot be received on passenger and baggage check-in desk. due to its size. Special check-in desk (desk 27) is used for reception of this kind of baggage. After reception of oversized baggage and performed security control, the baggage is sent to sorting room.

Sorting room brigadier / foreman determines transport worker for takeover and sorting of such

Further procedure with such baggage is the same as with the baggage received in standard manner.

Transfer baggage represents passenger baggage which changes several airports until it reaches its final destination. Preparation manner and sorting of this kind of baggage is subject to transfer kind. There are three kind of transfer baggage:

- 1. Passenger baggage with starting station BEG which changes several airports until it reaches final destination (TRANSFER). If there is air carrier's request such baggage is sorted on special loading equipment (trolley or container)
- 2. Passenger baggage which arrived by one flight to BEG and continues further to the next destination (TRANSFER - LOCAL). Upon arrival of this baggage in arriving sorting room Foreman places it beside carousel, where baggage sorting for the flight in subject is

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- performed. When information that passenger checked-in for flight (serial tag number and destination) is obtained from stewardess on transfer desk, this baggage is treated as baggage received in standard manner
- 3. Passenger baggage which arrived by one flight to BEG and which changes several airports until it reaches final destination (TRANSFER TRANSFER). Upon arrival in departing sorting room Foreman places such baggage beside carousel where baggage sorting for the flight in subject is performed. When information that passenger checked-in for flight (serial tag number and destination) is obtained from stewardess on transfer desk, in case there is air carrier's request, this baggage is sorted on special loading equipment (trolley or container)

Note: Transfer baggage which is not checked-in for any flight, after aircraft departure is taken by Baggage tracing service

Transfer baggage is conveyed together with local baggage to the arriving sorting room for the purpose of security control and additional conveyance to departing sorting room for reconciliation. After reconciliation it is sent to aircraft parking position for embarkation.

RUSH is baggage that Baggage tracing service marks with RUSH tag.

60' before STD Lost&found service official (latest 30' before STD) submits to foreman of TRW in arriving sorting room "List of sent Rush / prechecked baggage" which is completed for each flight and contains the following data:

✓ Flight number / data / baggage number / total baggage weight / baggage tags serial numbers

When RUSH baggage is taken, foreman of arriving sorting room arranges security screening of RUSH baggage whereupon it is sent to departing sorting room. Sorting of such baggage is subject to air carrier's request (together with local baggage or apart from it). Baggage of operative crew is submitted on check-in desks and it is sent to sorting room. Such baggage is not registered in so called Bingo lists Numbers of baggage collis received in sorting room and baggage checked-in on check-in desks must be identical. Comparing of colli numbers is done twice during flight as follows:

- √ 45' before STD (cross mode)
- ✓ latest 25' before STD

In case there is difference between numbers of baggage colli received on check-in desk and in sorting room, foreman together with check-in supervisor attempts to find possible cause in the following manner:

- ✓ Establishes whether it is local or transfer baggage
- ✓ Checks whether all baggage received on oversize baggage desk (desk 27) has arrived in sorting room
- ✓ Compares transfer baggage number

In case even after afore prescribed steps the cause is not established, foreman:

- ✓ Submits "BINGO" list to check-in supervisor according to which comparing of baggage received on check-in desk and sorting room is performed
- ✓ Notifies Aircraft handling supervisor (on position), who is obliged to arrange rechecking (recounting) of baggage inside/beside aircraft

After baggage reconciliation, foreman who is in charge of the flight in subject arranges baggage measuring. During the measuring, foreman completes two kinds of forms:

- ✓ Registry list of measured baggage on a flight (stays in sorting room archive);
- ✓ List of measured baggage on a flight (to be submitted with baggage on position)

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"Registry list of measured baggage on a flight" is completed by foreman who enters data for each trolley/container separately, regarding to:

- √ trolley number/container mark
- ✓ category of baggage loaded on trolley/ in container
- √ colli number on trolley/ in container
- ✓ net mass weight of each trolley/container (total weight is reduced by trolley/container mass)

After measuring of all baggage on flight, foreman completes other data on "Registry list of measured baggage on flight":

- ✓ Total mass of baggage received for flight in subject (sum of previous data) via sorting room
- ✓ Number of collis (registered by Supervisor for passenger and baggage check-in)
- ✓ Note on possible irregularities

In case when baggage is sorted in containers foreman is obliged to notify Balance service on measured weight of each container and also to enter data into ULD tag.

"List of measured baggage on flight" is completed in cases when baggage is sorted on trolleys and in cases of submission LMC (last minute change) for baggage (of any kind). This list is completed for each trolley separately and it is sent together with baggage on aircraft.

The following data are entered in this list:

- ✓ LOCAL / TRANSFER / TRANSIT encircle basic category of the baggage trolley
- ✓ DATE date of flight realization
- ✓ FLIGHT flight number
- ✓ DESTINATION
- ✓ NBR. PCS. number of baggage collies
- ✓ NET WEIGHT
- ✓ NO. OF TROLLYES/ULD number of trolley/mark of container
- ✓ POS/REG A/C parking position and aircraft registration
- ✓ REMARKS remarks regarding baggage loaded on the trolley in subject(damaged, open arrived in sorting room)
- ✓ CATEGORIES baggage category is marked with "X"

When baggage is towed to the position, Airport baggage transport equipment manipulator hands over "Lists of measured" baggage on flight" to Supervisor on aircraft handling or to Foreman of cargo reload

Baggage received on check-in desk is brought to sorting room by transport system which consists of conveyors beside the desk and in the sorting room. Transport system, automated and connected with X-ray screening (counter-diversion control), sorts out "suspicious" baggage into, so called pocket, which is placed in a part of transport system in the sorting room. Beside the pocket, there is a printer and stickers with reasons of sorting out.

Transport worker informs Foreman on flight in subject about such baggage and brings baggage to the desk for oversized baggage (desk 27) in order to be X-screened. If it is ascertained on X-screening that baggage does not contain potentially dangerous items, X-ray servant, marks baggage with sticker "SCREENED BAGGAGE". After that Transport worker returns baggage in subject to carousel for the concerned flight and he notifies Foreman on the flight in subject.

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# SUBJECT OF THE PROCUREMENT, INFORMATION SYSTEM - BRS

**Subject of the procurement** Passenger and baggage reconciliation system - BRS is the procurement of the system which will enable automation of the process of matching passengers and baggage at the Airport Nikola Tesla.

Procurement subject includes the following:

#### INFORMATION SYSTEM

- o Application software
- o Hardware and system software

#### INITIAL SETUP OF INFORMATION SYSTEM

- Implementation of Information System
  - I) Needs analysis, system design, management of implementation project
  - II) Installation and Configuration
  - III) Integration
  - IV) Evaluation a test period
  - V) Commissioning
- Training
  - I) Training in the use of the Information System
  - II) Training for the first level maintenance of information system

## SUPPORT AND MAINTENANCE

- o Preventive support and maintenance
- o Corrective support and maintenance
- Reporting

#### 3.1 DESCRIPTION OF THE PROCUREMENT SUBJECT

#### 3.1.1 INFORMATION SYSTEM

#### SCALABILITY AND AVAILABILITY

Information system, which is the subject of procurement, must provide a high level of scalability and availability of the system:

- The system architecture should be such that the additional hardware and software can be introduced into the system without any interruption of service and the need to redesign the system.
- It is necessary to provide the ability to expand the system with new functionalities. It is also necessary that the system is flexible enough to expand both the hardware and software to support the increased of traffic volume at the airport to a minimum of 5 million passengers per year.
- The number of system users (system units) should not affect the performance of the system.
- Information system should be designed to operate 24 hours a day, 365 days a year.
- The Tenderer shall provide the necessary software in order to secure redundant operation of information system and data synchronization.

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- General availability of the system shall be a minimum of 99.6% per annum, excluding planned to shut offs of the system.
- The system is fully integrated, meaning that when the information is updated in any part of the system, they are automatically available throughout the system.
- The system provides a mechanism for controlling and managing the exchange of data
- In case of failure, system must have the possibility to update data with data collected during the system failure.

#### ARCHITECTURE OF INFORMATION SYSTEM

The information system must have an architecture that provides high availability of work and is realized by software and hardware redundancy and built-in fault tolerance.

All central components of the information system should be multiple and redundant to have an automatic *failover* to allow the safe and continuous use of the system.

The information system should have built-in fault tolerance (*fault-tolerant*), and must be designed in such a way to achieve both hardware and software redundancy, so that there is no single point of failure (*single point of failure*) that may affect the termination of the performance of airport operations.

The functionality of the Information System to be provided through a group of system and application software and necessary licenses which include, but are not limited to:

- Databases
- · Interface for integration with other systems
- Firmware
- Applications for remote management and configuration software
- The other software that Tenderer considers necessary for the optimal functioning of the system

The system must allow the export of data to more acceptable, standard formats for the airline, the airline group and other relevant information (such as. Microsoft Office, etc.).

#### SAFETY AND SECURITY OF INFORMATION SYSTEM

The information system should be free of viruses and other infections that can affect the operation of the system, which applies to all new versions of the software, firmware and similar.

The Tenderer shall provide all the necessary antivirus software needed to preserve the security of the system and its protection against unauthorized access.

The information system should provide a high level of security and protect the system from unauthorized attempts to login. Users need to authenticate (code or otherwise) during logon.

The information system should be protected in a way that daily storage of all data is done and to allow instant retrieval of the data in the system, when it becomes necessary. The Tenderer shall submit the optimum procedure for data storage and *disaster-recovery* procedures that involve minimal recovery time of the system in case of total or partial failure of equipment.

The information system should include the automatic and / or remote diagnostics to detect, identify record and remedy errors recorded in the system.

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#### MAIN CARACTERISTOCS OF BRS SYSTEM

Request specification for "Baggage management and reconciliation system" contains technical specification for automated airport system for baggage reconciliation. Automated airport baggage reconciliation system will be installed in Departing sorting room of Terminal 2 of Aerodrom "Nikola Tesla" Beograd. This system will ensure positive passenger and baggage reconciliation for departing flights, ensuring that baggage travels in aircraft only when passenger is in the aircraft.

Apart from security aspects of the system, being public procurement subject, Aerodrom "Nikola Tesla" Beograd wants to get advantage of operative and commercial characteristics such systems offer. This system represent key part of operation with baggage on Aerodrom "Nikola Tesla" Beograd and as such, each system offered by potential suppliers must be reliable, strong and reach in functions.

The System must be completely in accordance with ICAO Annex 17 and it must perform baggage reconciliation automatically. Besides, it provides system of baggage management in a manner to enhance baggage handling process by improvement of communication roads and by provision of common service platform for those who are involved in passenger and baggage handling. It will be available for baggage manipulators to make decision (load/no-load) for the baggage according to information obtained in real time.

System will be set in such manner to guarantee performances with baggage capacity, subject to performance of existing transport system (VanDerLande). The system will be able to expand and improve in a manner that this baggage capacity may increase by 50%.

The system will be projected as that to manage registered baggage. As baggage it is considered all baggage registered in Passenger and baggage check-in system (Departure control system)

The system will be integrated with third person systems including, but not limiting to usual baggage check-in systems, visual flight information system etc.

The system combines the following main operation processes:

- Baggage management
- Baggage tracing
- Baggage reconciliation

The system enables automated communication between:

- Airport
- Air carriers
- Ground handling companies
- and any other relevant organizations (duly authorized bodies and/ or regulative bodies)

and it will be suitable for using by above mentioned factors

#### Security

- Impedes aircraft departure with non-approved baggage
- Enhance passenger and flight security through additional security layer provided by system
- The system encourages and supports multi-user approach
- The system supports different rights of access and levels of user's rights
- System functions available to every user can be controlled by allocation of suitable security profile to each user.
- The system supports using of several organizations, where each can be allocated with operations with certain number of air carriers. Every user is in connection with one organization.

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• Data are filtered for each user, enabling him to see and use only data for flights of air carrier connected with his organization.

## The system improves baggage handling process:

- Identifies problematic phases in baggage handling process
- Avoids dispatch deficit and wrongly directed baggage (baggage miscarriage)
- Avoids flight delay due to baggage handling
- If baggage should be loaded, baggage location is familiar
- Fast baggage identification and location of transport units (container/ trolley-future system expanding)
- Complete baggage control of arriving (future system expanding), departing and transfer baggage
- Simple decision load / no-load
- Easy to locate baggage in case of "no show"
- Automatic identification of "non-approved" baggage
- Excellent process monitoring on working stations
- Approach to important information on mobile wireless terminals for baggage screening (mobility)
- Helps user in automatically container recognizing (Unit Load Device)

# System should

- Notifies automatically appropriate organization/ person in case of procedure deviation
- Automated notification on special baggage
- Automated notification on baggage of other organization / person (wrong sorting)
- Changes on baggage, transport units and flight data are immediately forwarded to all users, providing them with updated information in real time
- Automatic data distribution
- Improves communication between involved parties
- Notifies manipulators and air carriers in any time on all questions regarding their baggage
- Collected data are shown as accurate or are stored for reports
- Provides detailed analyses and data for flights, ULD, details on baggage and passengers
- Impedes deficit of baggage dispatch
- Monitors BSM reception (BSM baggage origin / source message) for messages received from DCS
- Support IATA Recommended practice 1745, 1740 and 1800.

#### Technical characteristics

- The system must follow modular concept, in such manner to enable Aerodrom "Nikola Tesla" Beograd scalability, i.e. Possibility of future linking of additional systems or modules
- It has flexibility for future changes and system expanding, with minimal necessary adaptations on system
- Appearance and feeling during operations with graphical user's interfaces must be simple, easy for usage, consistent and intuitive - User friendly.
- Communication of the system with user must be clear, intelligible, obvious and unscramble, especially in cases of sending message about error or warnings
- The system must have approach to data from near or far past
- The system must work fast, with short response time, in a manner not to affect operation process and operation of other systems
- The system must enables data export to several acceptable, standard formats (such as Microsoft Office and similar)

#### Standards

Minimum connected time 45min (Airport Belgrade)

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- Non-dispatched baggage 2/1000/month (Airlines service level agreement)
  - in 2010, 1.24/1000pax (bagg message report, SITA)
  - in 2011, 1.44/1000pax (bagg message report, SITA)

#### **FUNCTIONAL REQUIREMENTS**

In previous period Aerodrom "Nikola Tesla" Beograd registered constant traffic increase disclosed in passengers, movements and cargo (see the part referring to Statistic data).

As CUTE platform was installed on Aerodrom "Nikola Tesla" Beograd, air carriers are enabled to use its passenger and baggage check-in systems. The airport's main passenger and baggage check-in system is DCS Gaetan. Each of the instanced systems gives possibility to passenger and baggage check-in agent to perform automatic reception of passengers and their baggage. During reception the baggage tag is given for each piece of baggage. The tag has one 10-digit mark. The number mark on baggage tag as well as passenger status is sent to the system for baggage reconciliation and baggage tracing is also enabled. Flight status is also sent to the system for baggage reconciliation. In this way, agent on baggage loading gets necessary information via mobile wireless terminals which contain all necessary data on baggage loading. On the basis of obtained information, agent on baggage reconciliation loads baggage in transport units defined in advance, i.e. containers / trolleys. After control of passenger embarkation into aircraft, if passenger is embarked, and his baggage is not, the system will report that the baggage is missing. In case the baggage is loaded and passenger is not the system will warn agent that it is necessary to unload the baggage of appropriate passenger before take-off permit of aircraft.

In the following text there are described minimal functional requests expected from the system, being public procurement subject, not limiting to systems which supplier will offer and with possible higher level of optimization of working process.

The system will support the following aims

- It will follow baggage movement from check-in desk to flight departure
- It will provide to baggage manipulators an advice in real time if certain piece of baggage may (not) load (and if not, it will give the reason) which will include local baggage, baggage checkedin to final destination including transferring operation, baggage on gate and the one that is submitted for resenting on flight.
- It will allocate containers and trolleys to defined flights, and register baggage details on the way they are loaded into containers or baggage departments (future system expanding).
- It will register the position of container and free baggage in aircraft trunk, thus accelerating loading process and diminishing departure delay (future system expanding).
- It will determine which baggage is loaded and make report of flight reconciliation and list of passengers and crew /cargo (flight manifest) in order to emphasize disparities.
- It will clearly identify baggage which should be unloaded, via mobile wireless terminal or working station.
- The password will be dedicated for access to specific work station or/and mobile wireless terminal, thus enabling operation integrity.
- Comprehensive tools for queries and information of management will be provided, including complete course of transaction control.
- The system will be able to issue post flight BMM (baggage manifest message) and send it to forthcoming stations.

Loading strategy defines checking performed when baggage manipulator screens baggage before loading into container, on trolleys or into aircraft trunk. At least three strategy modes must be supported, plus mode for standby baggage and "chosen" passengers:

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#### Load All:

BRS system will support load all mode enabling that baggage is simply loaded after screening. There are no checking to ensure that BSM for that baggage is received or that it is loaded for appropriate departing flight or that it obtained security approval. This mode is useful when there is communication problem with DCS, or when air carrier cannot send BSM.

#### Check Flight:

Check flight mode requests verification of BSM sent for the considering baggage and that the baggage has been loaded for the appropriate departing flight, verification of destination and container class. This mode is useful when air carrier cannot submit complete reconciliation element in BSM.

#### Security Check:

In security-checking mode, further checking is carried out through correspondence of flight data, in order to ensure that baggage has got security approval. If baggage is approved for loading, the system will register container number, ID of manipulator, baggage identification and ordinal number of loaded baggage in container. User will be given clear notification that baggage can be loaded. This will be the default operation mode for the System in usage and which is the public procurement subject.

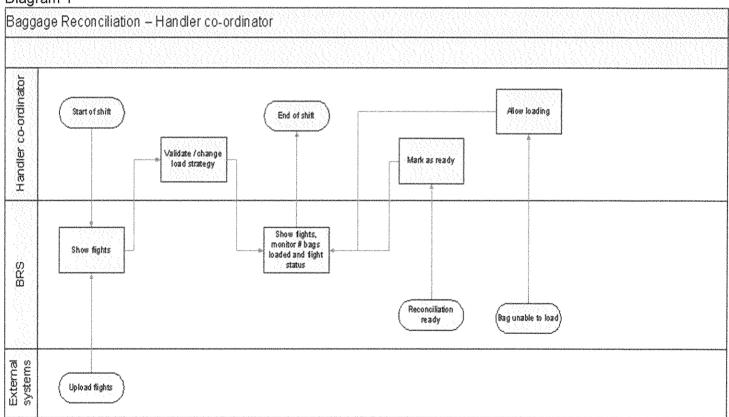
Note: all baggage which is transported from check-in desk to carousel in departing sorting room is considered as Security checked.

#### Standby baggage and baggage of "selected" passengers

Supplier will give strategy for handling of stand-by baggage and baggage of "selected" passengers. Such strategy will be flexible and configurable in such manner to support diverse requests of air carriers.

#### Baggage reconciliation

The Diagram 1 below defines course of sorting room chief's/ brigadier's task Diagram 1

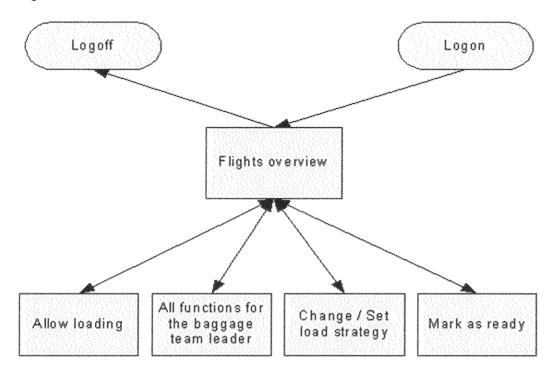


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The diagram 2 below shows all functions of Sorting room chief/ brigadier Diagram 2



Beside functions shown in diagram that should be carried out by Sorting room chief/ brigadier, the two of them should be able to perform all functions of Sorting room foreman (listed hereinafter).

Note: Baggage ready

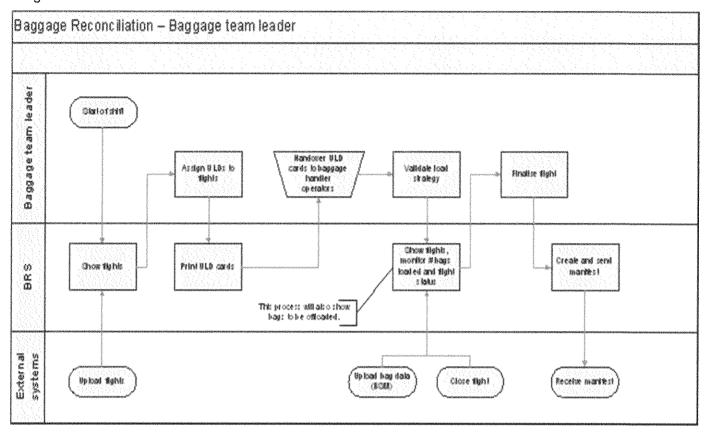
In case that FMM (Final Match Message) is not automatically sent from passenger and baggage checkin system (DCS) to baggage reconciliation system (BRS), Sorting room chief/ brigadier can mark that the baggage for the flight in subject is ready, i. e. reconciliated.

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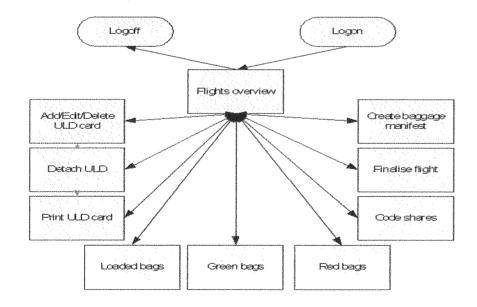
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# The diagram 3 below defines course of Sorting room foreman's tasks Diagram 3



# The Diagram 4 below shows all functions of Sorting room foreman Diagram 4



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#### Flight reconciliation overview

Sorting room foreman should handle one or several flights, i.e. to monitor the following details:

- SDD/STD ( scheduled departure date / time )
- Flight number
- Destination
- Sorting group ( economy / busyness / first class )
- Opening time
- Closing time
- ETD (estimated time of departure)
- Flight status:
  - ✓ Open : flight may be opened, in which case are ready to load the baggage on the flight
  - ✓ Closed: loading of the babbage on the flight is not possible, Flight has been closed.
  - ✓ Departed : flight may be marked 'Departed' either by the user setting the ATD, or by an incoming message from the AODB/FIDS system
  - ✓ Cancelled : Flights may be cancelled, in which case, no more baggage may be loaded on the flight
  - ✓ Frozen: The 'Frozen' status is used in case of a serious incident with a flight and prevents any user actions on that flight until further authorization.
- Strategy (load if checked-in or load all)
- Number of received BSM
- Number of loaded bags
- Number of ULD
- Number (non-)confirmed bags for loading
- Number of "red" bags

#### Flight updating

Flight updating will be performed automatically in order to make flight list daily updated.

Sorting room foreman should be able to monitor the following information:

Functions subject to flight

Change of loading strategy: Loading strategy may be changed due to global function change. This function is available only to persons working or acting as Sorting room chief / brigadier

Finalization and manifest: Flight may be finished and manifest printed. Surely, manifest may be printed only if flight is finished.

Mark as Ready: Used in purpose of manual creating "ready" flight status. This function is available only to persons working or acting as Sorting room chief / brigadier.

Bag counters: Shows bag counters for loaded bags (total bags and "red" bags), for received BSM (Attached, non-attached / rush, Crew and no ATL) and "green" bags.

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Information regarding ULD

ID ULD card: This ID number is printed as bar code on ULD card

ULD ID: ULD ID is ID representing physical ULD. Card, usually, has no fixed number and any ID may be chosen in creating ULD card.

Deleting: ULD deleting will be enabled only in cases there are no bags in ULD.

ULD Status: ULD status should "Open" or "Closed".

#### Baggage list

Shows: Sorting group, Bag marks, Passenger name, Note.

Baggage sorting list: Baggage sorting list will be sorted primarily according to ULD (increasing), and secondary according to sequential loading number

Note codes: Column note will show information from IATA recommendation 1745, Annex A, section 1.3. The mode used codes in this application are:

- ✓ UNAC : This is non-attached ( non-distributed ) baggage ( bag ), for some reason the passenger will not attend the same flight.
- ✓ RUSH : Bag ( baggage ) with this code ( mark ) is not loaded on its original flight and it is sent by this flight to the correct destination.
- ✓ CREW: All baggage of crew members is marked with this code ( Crew baggage is the part of attached baggage ).
- ✓ All other codes will be as attached baggage.

Baggage list printing: Baggage list will be printed in any time

- "Green" baggage list: Baggage previously put on pending, now can be loaded.
- "Red" baggage list: Information on the reason on this screed will indicate why this bag (baggage) is marked as "red" baggage. Possible reasons are:
  - ✓ BSM (not ATL) received
  - ✓ BSM (other flight ) received
  - ✓ BSM (DEL) received
  - ✓ BUM received
- Attaching of ULD to sorting group(s)

Before beginning of certain flight creating or in case a new group for sorting is created in the plan of flight creating, sorting room foreman chooses attaching function and attaches ULD to group(s) for sorting.

ULD card

Before ULD can be opened, ULD card should be created. ULD card defines attaching (allocation) of ULD (ULD ID) to one or several groups for sorting (flight + class + destination).

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## ULD type

For each ULD card ULD type should be completed (card or container). Standard ULD type will be "container".

#### Deleting of ULD card

After ULD card is created it will not be necessary, therefore the system must be enabled to delete that ULD card from the list.

#### ULD card printing

After ULD is attached to sorting group, ULD card will be printed for purpose of ULD identification and allocation (attaching) and it should be hanged on ULD.

#### Display of warning baggage list

As long as there are bags requiring special attention, that information must be visible at all working stations in warning baggage list. This list should contain all bags (baggage) with some kind of warning, for all flights according to some selected display criterion.

"Warning" bags are bags (baggage) of the following types:

### Red (Not OK)

✓ Bags with disapproved loading.

#### Green (OK)

✓ Non-loaded "pending bag" baggage, but with approved loading.

#### Discarded

✓ Baggage that was in status "pending bag" and after BUM message arrival discarded from pending and with loading disapproved.

#### Not loaded

✓ Baggage which was in status "pending bag" and whose loading was not approved for any reason, excluding BUM.

\*Note: "Pending bag" is scanned baggage which is waiting in BRS room to be loaded into attached ULD.

#### Warning reasons

"Reason" describes why the baggage of certain type:

#### Reasons for loading disapproval:

#### Data not received

- ✓ BSM (not ATL) received
- ✓ BSM ( other flight ) received
- ✓ BSM ( DEL ) received

#### Reasons for discarding:

✓ BUM received

#### Reason for baggage "Green"/ OK:

✓ BSM (ATL) received

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✓ Information for force loading received

Reason for baggage "Red" / NOT OK:

- ✓ BSM (not ATL) received
- ✓ BSM ( other flight ) received
- ✓ BSM (DEL) received
- ✓ BUM received

#### Flight finalization

When a flight is put into status "Ready" (created closing, received BCM-FMM or "marked as ready"), the flight may be finished (no more open ULD).

Finalization with "red" baggage. Flight finalization is not possible as long as there is even one "red" baggage.

BNS (Bag Not Seen ) response after finalization.

After an order for flight finalization is sent BRS will send BNS message for each baggage for which BSM/BTM message is received, but which was not screened in BRS before loading. When the flight is de-finalized and finalized again, BNS messages will be sent as the flight was not previously finalized. Responsibility of the one who receives BNS messages is to check whether BSN was received previously for the considering baggage (bag) if the system offers that possibility (DCS)

#### Creation of baggage manifest

Before landing of, individual flight is approved the list of all loaded baggage should be taken over by pilot. Manifest is printed and baggage cannot be added or removed from the manifest using BRS application. Any change after printing of manifest will be done manually. FCM (Flight Close Message – from BRS to DCS) and BMM (Baggage Manifest Message)messages will be sent.

Manifest content

Manifest will contain: Air carrier, flight number, destination, aircraft type, printing time.

Total number of loaded baggage (bags), total number of non-allocated bags, total number of baggage with mark "red", total number of allocated (distributed) baggage, baggage marks, SDG (economy / business / first class), ULD, passenger's name, loading sequence, note (Rush, non-allocated, Crew), requested security level, security status.

#### Manifest signing

Beside all previously stated data manifest should contain statement on loaded baggage and performed security checking signed by chief.

#### Manifest memorizing

The system will save (memorize ) manifest in PDF format.

## Manifest re-opening

Manifest re-opening ( and re-printing ) will be possible, yet contain change will not be possible.

#### FCM after manifest printing

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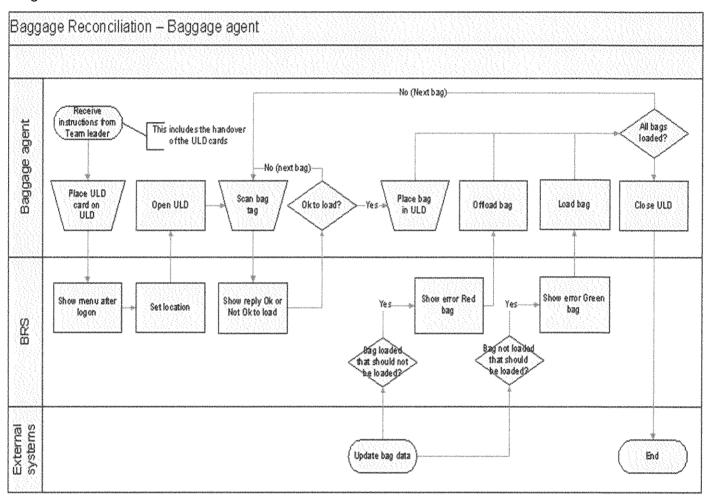
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Once manifest is printed the flight cannot be changed. DCS is notified about this by sending FCM and BMM messages. Specification of these messages is given in IATA Recommendation 1745. [IATA].

#### Baggage agent

The following diagram 5 describes how baggage agent (transport worker in sorting room) can be guided by application on wireless device for baggage screening (Hand Held Terminal).

Diagram 5



Display of the station for application on device starting

When HHT (Hand Held Terminal) device is turned on and application started, log-in display automatically pops out. On this display baggage agent (transport worker in sorting room) can log-in in application by entering its username and password.

#### ULD opening

Before agent is possible to perform and conciliate baggage, ULD must be opened. Operator can choose one of two offered modes :

Mode with one ULD: number of ULD which can be opened is limited to one.

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Mode with several ULD: This mode is useful, for instance, when there are several groups allocated for sorting at location. Number of ULD that can be opened should be limited on concrete value with maximal value of 7 (parameter of application).

After opening of ULD command, application will show the list of open ULD on the screen for display of open ULD

#### Loaded baggage

Each bag (baggage) will be identified by scanning of baggage marks using HH terminal. BRS application will inform agent (operator) whether considering baggage (bag) may be loaded or not, subject to baggage and flight parameter.

#### Reasons for non-loading.

The following reasons for non-loading should be supported:

- ✓ Inappropriate mark (baggage tag) less or more than 10 digits
- ✓ A mark identical to the mark already existing in the system (Fallback Tag)
- ✓ No BSM
- ✓ Received BSM DEL message
- ✓ Finalized flight (finalized or manifest printed)
- ✓ Passenger / baggage removed (BUM)
- √ Standby passenger ( not ATL)
- √ Passenger not checked-in ( not ATL )
- √ Standby passenger ( not ATL)
- ✓ Duplicated baggage ( baggage already loaded )
- ✓ No ULD for class/ on flight / to destination

#### Passenger status (additional reasons for non-loading)

If baggage is not ATL, and passenger status contains "N", system response for non-loading should be "Passenger not checked-in".

If baggage is not ATL, and passenger status contains "S", system response for non-loading should be "standby passenger".

If baggage is not ATL, and passenger status is not known (there is still no passenger status in the system), system response for non-loading should be "Standby baggage".

#### BPM after loading

Each individual loading activity will be forwarded (confirmed) to DCS by BPM sent.

#### ULD closing

When ULD is full or all baggage in sorting room for that ULD is loaded, ULD should be closed. Besides, ULD can be closed, randomly, at any moment.

ULD closing with baggage marked with "red".

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There is possibility to close ULD that contains baggage marked with "red" because several baggage agents can have the same ULD open, and another agent can be responsible for removing of mark "red" (flight finalization is not possible if there is baggage with mark "red" on the flight).

ULD closing with baggage marked with "green".

There is a possibility to close ULD, even if there is baggage marked with "green". Several agents can have the same ULD open and another agent may be responsible for loading of baggage marked with "green" or chief might decide not to allow loading until flight finalization.

Overview of list of baggage marked with "red"

During selection on the menu for baggage marked with "red", the system responds by display with list of baggage marked with "red".

Notification on baggage marked with "red":

As long as there is baggage marked with "red", it will be visible in the header of each wireless device (HHT) which has open ULD with loaded baggage marked with "red".

Overview of list of baggage with mark "green"

In case there is response for baggage that it has not been loaded before, and due to information update that the baggage can be loaded now, it is put on loading list for baggage marked with "green" in order to warn user. If baggage agent selects function "Green baggage", the system will respond with a display with list of baggage marked with "green".

Notification on baggage marked with "green"

As long as there is baggage marked with "green" (on baggage which can be loaded now), it will be visible in the header of each wireless device (HHT) which has open ULD in which baggage can be loaded.

#### Discarded baggage

In case passenger have not embarked in aircraft and baggage has already been loaded, passenger's baggage will be discarded. Loaded baggage that should be discarded (for any reason) is labelled as baggage marked with "red". Baggage agent is warned to discard baggage marked with "red" which is shown on wireless device display (HHT), because baggage marked with "red" is located in ULD opened by that agent. Chief or brigadier are warned if there is one or several baggage in the list marked with "red" for any flight and if there is one or several baggage marked with "red" on the warning list on working station.

Transfer of own baggage (ULD integration)

As number of baggage for some sorting group is not always exactly predictable(passengers may have less baggage than usual), there can emerge situations that two partly loaded ULDs there can be situation when two partly loaded ULDs are integrated. In order to avoid scanning of each piece of baggage upon removing from ULD and reiterative scanning on loading the function "transfer of own baggage" is defined. Baggage agent (in consultation with Chief) decides to integrate ULDs because the flight is closed, no more baggage is expected and there are several partly loaded ULDs.

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#### 3.1.2 HARDWARE AND SYSTEM SOFTWARE

# Hardware

The Purchaser shall provide computer network and all central IT resources that are necessary for the information system opeation, in order to ensure optimal performance of the same and meet requirements of the section characteristics of the information system.

Server environment is the central IT equipment of the information system and is a necessary server and communications equipment of information system that will enable their optimal functioning .

The supplier undertakes to implement the information system that is the subject of the procurement to the Purchaser's platform, which consists of :

- Blade server configuration
- VMware Vsphere 5.0 enterprise +
- OS Microsoft Windows 2008 Server R2

# <u>The supplier will deliver the mobile wireless terminal, the Motorola MC9500 or equivalent - 15 pcs.</u>

Mobile wireless terminal to be submitted by the Supplier shall be of such characteristics to enable the operation of the system that is the subject of this procurement in a manner previously described in the main characteristics and functional requirements. The supplier undertakes to supply a sufficient number of battery charging stations, and a sufficient number of spare batteries to ensure the smooth operation of the system, per shifts of 8 hours duration. The minimum technical characteristics of the wireless terminal:

- Should support IEEE802.11a/b/g standard ratified and adopted by the International Standards Organization (ISO) and the following exchange data standards over the mobile network (GPRS, WAP, HSPA or similar)
- It should have IP64 level of protection against external influences (International Protection Rating)
- To be resistant to multiple drops from 1.5 m height.

Purchaser agrees to provide space for the central IT equipment with all necessary conditions : rack cabinets , LAN , WAN, power supply , air conditioning , etc.

Workstations and printers necessary for the users of the system are not subject to the procurement and the Purchaser undertakes to provide them in accordance with the minimum technical requirements of the Tenderer. Number of workstations for the users of the system will be defined during the needs analysis phase, but will not exceed five.

Wireless network (WLAN), or exchange data via the cellular network (GPRS, WAP, HSPA or similar) - will be provided by the Belgrade Nikola Tesla Airport, and are not subject to this procurement.

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# System software

The Purchaser shall provide and perform the installation of the system software on a central server equipment of information system and workstations in order to ensure optimal performance and meet the requirements of the section Characteristics of information system.

Tenderer undertakes to supply and install the system software for wireless terminals.

If the offered information system does not support the implementation of the previously mentioned platform of the Purchaser, the Tenderer is required to deliver the hardware and system software required for optimal performance of server application of software solutions, to enter information about these IT resources into the table Other necessary IT resources and to include them in the total price offered.

Table Other necessary IT equipment

Ser No.	Name of the unit	Offered HW/SW (manufacturer's name and model)	Quantity (pcs.)	Unit price	Total price
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2.					
3.					
4.					
5.					
6.					
7.					
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9.					
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Note: The Tenderer is required to complete the table Other necessary IT equipment with information about the offered equipment. The Purchaser also accepts that if the shape and size of the table do not satisfy the tenderer, the Tenderer may specify the required information in a separate table.

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#### 3.1.2 INITIAL SETUP OF INFORMATION SYSTEM

#### 3.1.2.1 THE IMPLEMENTATION OF INFORMATION SYSTEM

The Tenderer undertakes to carry out the installation of information system to delivered equipment, as well as to the equipment of the Purchaser.

The Tenderer undertakes to deliver the information system and provide the service of implementation of information system by providing complete system design, including design for integration with other systems that are needed to make the system operational and meet the characteristics and functional requirements as described in the section Description of the procurement subject.

Implementation of information system involves the implementation of the system, application and other software necessary for the operation of the above system on delivered equipment and equipment of the Purchaser.

Implementation of information system consists of the following phases:

- Needs analysis, system design, management of project implementation
- · Setting and configuration of the system
- Integration
- Evaluation test period
- Commissioning

Note: Each of these sub-phases will ultimately be defined prior to the implementation by the both parties.

Below is a brief description of each phase of implementation:

# I) ANALYSIS OF NEEDS, SYSTEM DESIGN AND MANAGEMENT OF IMPLEMENTATION PROJECT

The Tenderer would make analysis of the Purchaser's needs based on the functional requirements described in the section Information system. Tenderer undertakes to provide a complete system design, including the design of the system integration based on the previous analysis of Purchaser's needs and functional requirements described in Section Description of the procurement subject.

The tenderer should appoint at least one project manager who will, based on the analysis of needs and in cooperation with experts of the Purchaser determined for monitoring of procurement realization, prepare and monitor realization of the Information System implementation plan.

The tenderer shall provide an implementation and installation schedule which will be coordinated by the Project Manager and that must not interfere with the performance of airport operations. All changes in the said plan that are necessary for the performance of airport operations will be coordinated through the Project Manager.

Needs analysis, system design and project management will be carried out through the following phases:

1. Analysis of the current system and organization of work

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- 2. The collection and subsequent data processing (technology of work, manpower, training of personnel, equipment, etc.)
- 3. Validation of collected and processed data
- 4. Management of the implementation project

# II) SYSTEM INSTALLATION AND CONFIGURATION

The Tenderer should perform installation of BRS system and other system and application software so that the system which is subject of public procurement would be operational and meet the functional requirements described in the section Description of procurement subject. The Tenderer shall submit to the Purchaser all installation media and installation procedures necessary for the smooth operation and the first level of system maintenance.

The Tenderer undertakes to submit to the Purchaser all installation media and installation procedures necessary for the smooth operation and the first level of system maintenance.

Configuration of the information system understands setting and adjustment of the system and its components including but not limited to:

- Hardware setup of server and server environment, as well as workstations and peripherals for operation in the Information system
- Software setup of system and application software, including databases for work in BRS system
- Network components setup of "gateway"
- Servicing
- User Interface

#### III) INTEGRATION

It is necessary to integrate the elements of information system with the following ITT systems:

- Purchaser's existing communications network (Fast Ethernet, Gigabit Ethernet, cat 6 cables and multimode optical fibers)
- Passenger and baggage check-in systems (Departure Conrol Systems DCS)
- Flight information display system (FIDS)

Passenger and baggage check-in systems (Departure Control Systems - DCS)

Aerodrom "Nikola Tesla" Beograd within its central infrastructure has Cute platform (SITA) used in Terminal 2 with appertaining check-in desks for passengers and baggage utilized for passenger check-in on regular air carriers for international flights. Terminal 2 is also used for extraordinary traffic, i. e. for passenger and baggage check-in on charter flights, VIP flights and etc.

Passenger and baggage check-in is carried out for national air carrier JAT Airways as well as for the other foreign air carriers currently present on the airport.

Passenger and baggage check-in on considering flights for national air carrier AirSerbia is performed by the carrier.

For all other companies currently present, passenger and baggage check-in and baggage reconciliation on considering flights is performed by professional services of Aerodrom Nikola Tesla Beograd.

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Je W Pinen K Intersection of existing check-in systems for passengers (Departure Control System) and baggage on Aerodrom "Nikola Tesla" Beograd

Airlines	IATA code	DCS	Note
Tarom	RO	SITA DCS	
Germanwings	4U	DCS Gaetan	Airport Nikola Tesla Belgrade
Tunis Air	ти	DCS Gaetan	Airport Nikola Tesla Belgrade
Alitalia	AZ	DCS Gaetan	Airport Nikola Tesla Belgrade
Norwegian	DY	DCS Gaetan	Airport Nikola Tesla Belgrade
Montenegro Airlines	YM	DCS Gaetan	Airport Nikola Tesla Belgrade
Pegasus Airlines	PC	DCS Gaetan	Airport Nikola Tesla Belgrade
Easyjet	U2	DCS Gaetan	Airport Nikola Tesla Belgrade
WIZZ Air	W6	DCS Gaetan	Airport Nikola Tesla Belgrade
BH Airlines	JA	DCS Gaetan	Airport Nikola Tesla Belgrade
Charter flights	-	DCS Gaetan	Airport Nikola Tesla Belgrade
Belavia	B2	DCS SABRE	
Olympic Airlines	OA	DCS OPAT	
Etihad Airways	EY	DCS SABRE	
Qatar Airways	QR	DCS ALTEA	
Flydubai	FZ	DCS MACS	
Aeroflot	SU	DCS SABRE	
Adria Airways	JP	DCS Pictures	
Lufthansa	LH	DCS Pictures	
Austrian Airlines	os	DCS Pictures	
LOT Polish Airlines	LO	DCS Pictures	
Swiss Air Lines	LX	DCS Pictures	
Turkish Airlines	тк	DCS Troya	
Air Serbia	JU	DCS GAETAN/SABRE	

Connecting of passenger and baggage systems with the system which is the public procurement subject should be in compliance with IATA recommended practice document 1800, section 5.4 Reconciliation, as well as with IATA recommended practice document 1745, section System messages

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on baggage, all in accordance with IATA resolutions and recommended practice.

Baggage messages regarding information on baggage that should be sent on flight are exchanged between the system being the public procurement subject and air carriers' systems for passenger and baggage check-in. Messages with baggage information are used for information exchange between controls on departure, check-in, systems for baggage and baggage reconciliation system. Messages with baggage information are basis for key data for operation of the system being the public procurement subject; they are used as information media of air carriers on checked-in baggage and baggage status (BSM, BTM, BUM messages). Also, BRS maybe possible to sent return report to air carrier on processed state of baggage (BPM message).

Baggage messages are transported into the System being the public procurement subject using the following Baggage information messages:

- Message on baggage source (BSM): This message contain complete information on baggage characteristics determined on check-in. In includes unique bar code, passenger details, flight route, loading approval and more optionally. It is sent to BRS.
- Message on baggage in transfer (BTM): This message contains complete information on baggage characteristics as determined in transfer station. It includes unique bar code, passenger details, flight route, loading approval and more optionally. It is sent to the System being the public procurement subject.
- Message on baggage unloading (BUM): This message indicates that the baggage identified in the message should be unloaded because it may have been rebooked or treated in some other way.
- Message on processed baggage (BPM): This message gives detailed information that baggage identified in the message have passed through the System being the public procurement subject. This is sent from the System being the public procurement subject.

Standard for the format and interpretation of all Service messages on baggage is given by [IATA RP 1745].

In any moment the system may accept changes of BSM and BTM messages and sending of BUM messages. New information will be available to operators of hand terminals and working stations immediately, and in some cases important changes will attract attention, as it is change of status approval for baggage loading.

The system being the public procurement subject will be able any moment to accept and process other message types as BCM, BNS and BMM, as following:

- Message on baggage control (BCM): BCM should support at least following secondary messages:
- Message on opened flight (FOM), Message on closed flight (FCM), Message on final matching (FMM).
- Baggage not seen (BNS): BNS gives information on baggage not being transferred for embarked passengers. BNS is projected as proactive message to offer information on miscarried baggage before passenger arrival.
- Message on baggage manifest (BMM): BMM should inform the following stations on real detailed baggage loading on flight.

Note: Integration with systems for the passengers and baggage check-in will be achieved through integration with Bag Message Service (BMS), which is not the subject of this procurement and will be purchased by the Purchaser. BMS will be designed in such a way to allow exchange of baggage messages (IATA Baggage Information Messages) between different DCS systems and information system that is the subject of procurement.

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#### Integration with Flight Information System

Information on the current timetable are sent from the FIDS (Flight Information Display System) to the BRS system. In this way, BRS will always have an updated record of all flights departing and arriving at the airport.

The system being subject of the public procurement should receive the information below (not limited to) from the Flight Information Display System:

- Flight (the airline and flight number).
- Type of aircraft.
- Scheduled time of departure / arrival.
- Estimated time of arrival / departure.
- Destinations.
- List of islands allocated to receive baggage of the flight specified- option
- Sorting area for receipt of baggage on the flight specified option

Flight Information System which is used at the Belgrade Nikola Tesla Airport is (AMS 6.0/Eclipse, SITA). This integration should enable receiving and displaying information about the flights that are necessary for the smooth operation of BRS.

Note: All third party fees necessary to implement and support this interface will be included in the cost of the Supplier.

#### Integration with Accurate Time System

If the system being subject of the public procurement does not have synchronization with an Exact time server, it is necessary to anticipate synchronization with NTP server of the accurate time system of Nikola Tesla Airport. The Airport Nikola Tesla, and the whole of Serbia uses Central European Time GMT / UTC +1 with daylight saving time (Daylight Saving Time - DST).

Integration will take place in the following phases:

- 1. Connection of installed Information System with the existing airport communication network
- 2. Connection of installed information system with existing airport IT systems,
- 3. Testing of the integration service

#### IV) EVALUATION - TEST PERIOD

Evaluation - The test period will take place in the following phases:

1. Putting the system into trial operation

The tenderer shall provide the test period which will include demonstration of the operation of Information system and all software components of the system. The tenderer shall submit a test plan that should include testing of the devices in the information system, system integration test, user test and final acceptance test of the system. Test plan should follow accepted industry practice.

Purchaser reserves the right to introduce changes to the test plan or to develop new operative evaluation tests and procedures.

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Ja yu Circa P Test for the final acceptance of the system should include all the requirements of the Technical Specifications and based on that conduct testing of delivered system, ie all the software components of the system.

# 2. Corrective System Setup

Any part of the system supplied by the Tenderer which does not meet the requirements of Technical Specifications will be replaced, upgraded or added by the Tenderer to correct noticed deficiencies. After correction of the perceived deficiencies, retesting will be conducted in order to verify the effectiveness of corrective measures.

# V) COMMISSIONING

Commissioning will take place in the following phases:

- 1. Putting the system in active operation
- 2. Activation of technical support and maintenance

#### **3.1.2.2 TRAINING**

The Tenderer agrees to provide training for the use of BRS system and training for first level maintenance in accordance with the following:

# I) TRAINING FOR THE USE OF INFORMATION SYSTEM

The Tenderer is required to provide training to users for all elements of the BRS information system on a "train the trainer" principle for the minimum of 5 users.

# II) TRAINING FOR THE FIRST LEVEL MAINTENANCE OF INFORMATION SYSTEM

The Tenderer is required to provide training for a team of technicians of the Purchaser's customer service who will be responsible for the first level maintenance of BRS information system. Training must provide adequate training of technicians and knowledge of the procedures and work on the first level of maintenance, to ensure its optimal functioning. The Tenderer undertakes to verify the training of technicians of the Purchaser's customer service team by testing their knowledge and practical work. Certification of the team of customer service technicians should be sufficient evidence to the service provider that the team will perform quality work in the first level maintenance.

All trainings must be completed prior to putting the system into active operation.

Tenderer shall submit a complete technical documentation for all elements of BRS system in English, as well as operating manuals for system users and manuals for the first level of system maintenance.

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# 3.1.3 SUPPORT AND MAINTENANCE

Support and maintenance refer to the software platform that is subject of public procurement, including database and all the software necessary for the optimal functioning of the BRS system. Support and maintenance consists of preventive and corrective maintenance and support including remote maintenance and engineering support.

The Purchaser will perform first level maintenance of workstations and peripherals as well as the part of BRS software platform that is installed on them, with a team of on-site technicians as follows:

- Help desk to users of BRS System
- Escalation to a second level of support and maintenance that will be provided by the Tenderer
- Preventive maintenance of system peripherals: preventive cleaning, installing and configuring of software on workstations and system peripherals and other as recommended by the Tenderer.

The Tenderer undertakes to provide services for preventive maintenance of the whole BRS platform, as well as services of the second and third level of corrective maintenance.

#### 3.1.3.1 PREVENTIVE SUPPORT AND MAINTENANCE

The Tenderer shall provide to the Purchaser all necessary technical support to ensure optimal operation of the system and to ensure the required availability of software platform of minimum 99.5% per annum, excluding the time for pre-agreed disruptions in system operation.

Preventive support and maintenance of software provided by the Tenderer includes:

- Contact Centre of the Tenderer (phone and/or e-mail) that will provide to the Purchaser answers to the questions and all the information necessary for the optimal functioning of the system, during normal business hours.
- Installation of new versions of software that are available for the duration of the contract on technical support and maintenance (installation the new version of the "core" software implemented on a central computer equipment of the system will be performed by the Tenderer remotely or on Purchaser's location while installation of software on workstations and peripherals will be performed by the Purchaser according to instructions and procedures provided by the Tenderer).
- Correction of errors through new planned software versions and updates of software
- "Software patches"
- The Tenderer undertakes to provide detailed descriptions of jobs and work procedures for preventive maintenance of software intended for the work on workstations and peripherals of BRS system (level 1), which will be carried out by a team of technicians of the customer service of the Purchaser.

The Tenderer undertakes to submit plans and procedures for the *Disaster Recovery* to ensure the optimal functioning of the system and the required system availability.

# 3.1.3.2 CORRECTIVE SUPPORT AND MAINTENANCE

Corrective support and maintenance of the software assumes that the Tenderer shall provide technical support center and performe 2 and 3 level of support and maintenance, and that he shall

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based on request (first notice) of the Purchaser carry out all necessary actions to eliminate perceived errors and malfunctioning. Troubleshooting the system implies that the Supplier shall provide all the necessary resources and perform all the necessary actions to rectify the fault in the system to allow system availability of 99.6% per annum, calculated from the time of the first notification by the Purchaser. The Tenderer undertakes to submit to the Purchaser, prior to start of service provision, document setting out the procedures and the way in which the Purchaser is to make a request for the removal of system failures, the way that Supplier will inform Purchaser about installation of new versions of software and similar.

The Purchaser will perform the 1 level of the corrective support and maintenance with its team of the customer service technicians.

- The second level of support and maintenance will be carried out by the Tenderer through system administrator who will be positioned locally and/or remotely, in the manner and within the time limits described in Table of corrective maintenance. The Purchaser shall provide connections for remote access by the Tenderer of the system that is the subject of public procurement. For a given level of support, the Tenderer must provide the technical support center (service desk).
- The third level of support and maintenance (engineering support) will be carried out remotely by the Tenderer, in the manner and respecting time-frames, which are described in Table corrective maintenance. The Purchaser shall provide connections for remote access of the system that is the subject of public procurement. If the Tenderer is unable to perform remotely within the specified timeframe as listed in the table he will be shall make an on-site repair on the location of the Purchaser.

Note: The team of technicians and administrators of the customer service of the Purchaser shall perform all duties in maintaining and supporting the system that are allowed to them and for which they are trained by the Tenderer.

Support center must be available in the period 24/7.

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#### Corrective maintenance table

The severity of a system failure	Failure report	Definition of failure	Failure status	Elimination of failure	Failure repair
1. Critical level	Telephone and/or e-mail	Disabled operation of the system software or the keysystem functional part and has the critical effect to airport operation performance	Detailed information on failure must be available within two hours.	90% of faults must be removed within 12 hours from the moment of failure report. System and operating environment must fully regain functionality within specified deadline.	Repair of code in the form of software patches (bug fix), etc, available in 3 working days following the moment of failure report.
2. High level	Telephone and/or e-mail	Disables major number of system users or affects time critical operations	Detailed information on failure must be available within one day from the faulure report.	90% of faults must be removed within 3 days from the moment of failure report. System and operating environment must fully regain functionality within specified deadline.	Repair of code in the form of software patches (bug fix), etc, available in 5 working days following the moment of failure report.
3. Low level	Telephone and/or e-mail (standard business hours)	Not widespread to the whole system; system operation not compromised. These are minor errors that cause discomfort to the user's work on the system.	Detailed information on failure must be available within five days from the failure report.	Faulure must be overcome in the next release of the software, and no later than in 15 days.	Repair of code through the first following version of software, not later than in 3 months.

Note: The standard business hours means eight-hour working day in the period between 07 and 17 hours.

#### 3.1.3.3 REPORTING

The tenderer shall provide a minimum of the following reports on the use of the Information System, which should be in electronic and written form:

- · Report on usage of BRS system Report on the details to log on. This report provides monitoring of support activities on a daily basis, including log on to the system, the duration of activities, the amount of activity and the time of log-out from the system. The report shall be submitted on a monthly basis.
- · Report on system availability This report is to provide statistics of availability of all system components.
- · Report of calls to the Support Center of the Tenderer Report on the details of the use of services of the support center with data on the time of call, description of the problem and ways of solving problems. The report shall be submitted on a monthly basis.
- · The tenderer shall on monthly basis perform all necessary measurements of the service of corrective support and maintenance, according to the categories shown in the Table of corrective maintenance and to make monthly reports to the Purchaser on provided service of corrective support and maintenance with all the necessary statistics.

It is necessary that the reports be in a standard format.

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# **RECAPITULATION**

		DESCRIPTION	TOTAL PRICE W/O VAT
1		INFORMATION SYSTEM	
	1	Total price of hardware	
	2	Total price of software	
	ndovsensom consum	INFORMATION SYSTEM TOTAL:	CONTROL CONTROL CONTROL CONTROL AND AN ARCHARGO AND ARCHAR
	INI	TIAL SETTING OF INFORMATION SYSTEM	
	1	Implementation of Information system	
	2	Training	
		INITIAL SETUP OF INFORMATION SYSTEM TOTAL:	
NAME OF THE PARTY	SU	PPORT AND MAINTENANCE	
	1	Warranty period	
	2	Support and maintenance	
	3	Reporting and statistics	
	deservan	SUPPORT AND MAINTENANCE TOTAL :	other in the trade of Control of the Control of the Angel of Control of the Contr
		TOTAL I+II+III:	

Tenderer	(name,	authorized	person	signature	and	seal)
	-	**************************************			-	

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- 4. CONDITIONS FOR PARTICIPATION IN THE PUBLIC PROCUREMENT PROCEDURE FROM ART. 75 AND ART. 76 OF THE PUBLIC PROCUREMENT LAW AND INSTRUCTIONS HOW TO PROVE THEIR FULFILMENT
- 4.1 CONDITIONS FOR PARTICIPATION IN THE PUBLIC PROCUREMENT PROCEDURE FROM ART. 75 AND ART. 76 OF THE PUBLIC PROCUREMENT LAW FOR TENDERERS

MANDATORY CONDITIONS FOR PARTICIPATION IN THE PUBLIC PROCUREMENT PROCEDURE FROM ART. 75, PARAGRAPH 1 OF THE PUBLIC PROCUREMENT LAW			
The Tenderer in the public procurement procedure has to prove that he fulfils stated mandatory conditions for participation in the subject public procurement procedure	Evidence of eligibility		
	For legal entities		
	Extract from the Register of Business Registers Agency, or an extract from the registrar of the competent Commercial Court		
1. Tenderer has to be registered with the	For enterpreneurs		
competent authority, i.e. entered in the relevant register.	Extract from the Register of Business Registers Agency, or an excerpt from the relevant register.		
	For natural persons		
	Natural persons do not submit this evidence.		
	For legal entities		
2. Tenderer and Tenderer's legal representative may not be convicted of any of the offenses as a member of an organized criminal group, can not be convicted of crimes against the economy, crimes against the environment, the offense of receiving or giving bribes, the crime of fraud.	Criminal record extract or certificate of the competent court and the police department of the Ministry of Internal Affairs that the legal person, or his legal representative (or more if any) has not been convicted of any of the offenses as a member of an organized crime group and has not been sentenced for crimes against the economy, crimes against the environment, the offense of receiving or		

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In case that the entity has more than one legal representative, the evidences shall be submitted for each of them.

# For enterpreneurs

Criminal record extract or certificate of the competent court and the police department of the Ministry of Internal Affairs that the legal person, or his legal representative (or more if any) has not been convicted of any of the offenses as a member of an organized crime group and has not been sentenced for crimes against the economy, crimes against the environment, the offense of receiving or giving bribes, the crime of fraud.

Requiest for this may be submitted accordin to the place of birth (the authority in charge of internal affairs of the municipality where the person was born) or the place of residence.

# For natural persons

Criminal record extract or certificate of the competent court and the police department of the Ministry of Internal Affairs that the legal person, or his legal representative (or more if any) has not been convicted of any of the offenses as a member of an organized crime group and has not been sentenced for crimes against the economy, crimes against the environment, the offense of receiving or giving bribes, the crime of fraud.

Requiest for this may be submitted accordin to the place of birth (the authority in charge of internal affairs of the municipality where the person was born) or the place of residence.

3. The Tenderer must fulfill the condition that he has not been rendered any final judicial or administrative measure prohibiting it to carry out the activities being subject of the public procurement, being in force at the time of announcement, i.e. submitssion of the invitation to tender.

# For legal entities

Certificate of the Commercial and Magistrates Court that he has not been rendered measure prohibiting it to carry out the activities or confirmation of the Business Registers Agency that they did not register measure of prohibition to carry out the activities for this company.

#### For enterpreneurs

Certificate of the Magistrates Court that he has not been rendered measure prohibiting it to carry out the activities or confirmation of the Business Registers Agency that they did not register measure of prohibition to carry out the activities for this economic entity.

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	For natural persons	
	Certificate of the Magistrates Court that he has not been rendered measure prohibiting it to carry out certain activities.	
	For legal entities	
4. The Tenderer must fulfill the condition	Certificate of Tax Administration of the Ministry of Finance and Economy that he has settled due taxes and contributions and Certificate of the competent local authorities that he has settled obligations in terms of local public revenues.	
that he has settled his legal obligation		
in respect of tax, contribution and othe public duties payment, as prescribed be regulations of the Republic of Serbia of foreign country when Tenderer's heat office is on its territory.	Certificate of Tax Administration of the Ministry of Finance and Economy that he has settled due	
	For natural persons	
	Certificate of Tax Administration of the Ministry of Finance and Economy that he has settled due taxes and contributions and Certificate of the competent local authorities that he has settled obligations in terms of local public revenues.	
ADDITIONAL CONDITIONS FOR PARTICIPATIO ART. 76 OF THE PUBLIC PROCUREMENT LAW	N IN THE PUBLIC PROCUREMENT PROCEDURE FROM	
The Tenderer in the public procurement procedure has to prove that he fulfils stated additional conditions for participation in the subject public procurement procedure	Evidence of eligibility	
5. The Tenderer must have sufficient business capacity available. Under business capacity the Tenderer understands that in the last three years, before published invitation to tender, he has implemented at least BRS systems for one client and that it is still in use.	List of delivered BRS systems with dates and list of customers, i.e. purchasers.	
6. The Renderer must have necessary human resources for this procurement. Under the necessary human resources the Purchaser assumes that the Tenderer has at least two employed Project Managers (PMP or	Statement of fullfilling requirement of necessary human resources, which must be signed and sealed by the Tenderer.	

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equivalent) who are responsible for managing the implementation project of BRS system, with experience on at least 5 projects of the same or similar character and scope.

**Note:** The tenderer is not required to submit evidence that is publicly available on the website of the competent authorities.

If in the state in which the Tenderer is based they do not issue eligibility evidence (evidence from Template 4) The Tenderer may instead of evidence, submit his written statement, made under penalty of perjury certified before a court or administrative body, notary or other competent authority of the state.

If the Tenderer is based in another country the Purchaser can verify whether the documents by which the Tenderer proves fulfilment of required conditions are issued by that state.

#### STATEMENT OF THE TENDERER:

Pursuant to Article 79 Paragraph 9 of the Public Procurement Law (" Official Gazette of the Republic of Serbia", no. 124/12) under full moral, material and criminal responsibility I declare that the Tenderer (name of Tenderer) meets the
requirements of Article 75 (Sections 1 to 4) of the Public Procurement Law, specified in Template 4 of
the Tender Dossier (items 1 to 4), to participate in the procurement procedure "BAGGAGE
RECONCILIATION SYSTEM - BRS" No. 8/2013.
Under the full moral, material and criminal responsibility I claim that in the country where our headquarters are located (name of the country) are not issued following evidences under Article 77 of the Public Procurement Law, stated in Template 4 of the Tender Dossier (items 1 to 4) as follows:
1) Extract from the Register of Business Registers Agency, or an extract from the registrar of the competent commercial court;
2) Criminal record extract or certificate of the competent court and the police department of the Ministry of Internal Affairs that the legal person, or his legal representative (or more if any) has not been convicted of any of the offenses as a member of an organized crime group and has not been sentenced for crimes against the economy, crimes against the environment, the offense of receiving or giving

3) Certificate of the Commercial and Magistrates Court that he has not been rendered measure prohibiting it to carry out the activities or confirmation of the Business Registers Agency that they did not register measure of prohibition to carry out the activities for this company;

bribes, the crime of fraud:

4) Certificate of Tax Administration of the Ministry of Finance and Economy that he has settled due taxes and contributions and Certificate of the competent local authorities that he has settled obligations in terms of local public revenues.

**NOTE**: Encircle one or more of the evidences from Article 77 of the Public Procurement Law (evidences from Template 4, items 1 to 4 of Tender Dossier), which are not issued in the country in which the Tenderer is based. Other evidences that the state of his headoffice issues shall be presented together with the tender.

Place and date:
Tenderer (Name, signature of authorized person and seal)

**NOTE**: Tenderer's Statement must be certified before a court or administrative body, notary or other competent authority of that state.

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# 4.2. TERMS OF ARTICLE 75 PARAGRAPH 2 LAW ON PUBLIC PROCUREMENT

The Tenderer shall, in preparing his tender, explicitly state that he adhered to obligations under the applicable regulations on safety at work, employment and working conditions, environmental protection, and to guarantee that he is the holder of intellectual property rights. The fulfillment of these conditions tenderer proves with the following statement.

#### STATEMENT OF THE TENDERER:

	Procurement Law (" Official Gazette of the Republic of legal responsibility I declare that the Tenderel
tender for participation in the public procurement 8/2013, has complied with the applicable regula	( state tenderer's group in case of a joint tender), in the preparation of "BAGGAGE RECONCILIATION SYSTEM - BRS" No ations on the safety at work, employment and working derer guarantees that he is the holder of intellectual
Place and date:	
	Name of the Tenderer or an authorized member of the group, authorized person signature and seal

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#### 4.3. INSTRUCTIONS ON HOW TO PROVE FULFILMENT OF CONDITIONS

If the Tenderer submits the tender independently, he proves fulfilment of conditions from Article 75 and 76 of the Public Procurement Law, described in Table 4.1., by submitting the evidence stated in Table 4.1. in Template 4 of the Tender Dossier.

If tender is submitted by a group of Tenderers (joint bid), each Tenderer from a group of Tenderers must meet the requirements for participation in the procurement procedure under Article 75 Paragraph 1 points 1) to 4) of the Public Procurement Law ("Official Gazette of the Republic of Serbia" 124/12). Conditions are described in points 1) to 4) of Table 4.1. in Template 4 of the Tender Dossier, and they prove fulfilment by submitting evidence given in Table 4.1. Additional requirements from Article 76 of the Public Procurement Law, which are described in Section 5) Table 4.1., in Template 4 of the Tender Dossier, they meet together by submitting evidence given in Table 4.1., point 5).

In the case of a tender with a subcontractor, the Tenderer shall, as part of the tender, file a statement of whether the execution of procurement he will partly delegate to a subcontractor, indicating the part of the contractual obligations that he will delegate to a subcontractor. The Tenderer shall indicate the name of the subcontractor, and if the public procurement contract is concluded, the subcontractor shall be stated in the contract.

The Tenderer shall deliver evidence for the subcontractor that the requirements of Article 75 Paragraph 1 points 1) to 4) of the Public Procurement Law (" Official Gazette of the Republic of Serbia" No. 124/12), as described in points 1) to 4) of Table 4.1. in Template 4 of the Tender Dossier have been fulfilled.

If a public procurement contract is concluded, the subcontractor shall be stated in the contract.

Requirements of Article 75 Paragraph 2 Law on Public Procurement. Tenderer or an authorized member of the group of Tenderers (in case of a joint bid), shall, with the tender, submit a completed and signed statement from 4.2. this Template.

Method of delivery of evidence is prescribed by Article 79 of the Public Procurement Law ("Official Gazette of the Republic of Serbia" 124/12).

If the Tenderer is a legal person the evidence in Table 4.1., points 2) and 4) may not be older than two months before opening. Evidence from Table 4.1., item 3) must be issued after the publication of the invitation to tender.

If the Tenderer is an entrepreneur the evidence in Table 4.1., points 2) and 4) may not be older than two months before opening. Evidence from Table 4.1., item 3) must be issued after the publication of the invitation to tender.

If the Tenderer is an individual the evidence in Table 4.1., point 2) and 4) may not be older than two months before opening. Evidence from Table 4.1., item 3) must be issued after the publication of the invitation to tender.

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# 5. INSTRUCTIONS TO TENDERES

#### LANGUAGE

1. Tender must be in Serbian or English. If the Tenderer is a foreign entity, the tender may be made wholly or partly in English.

#### **TENDER CONTENT**

- 2. Tender is submitted in writing and must contain the following elements:
  - Duly completed, sealed and signed tender template (Template 6);
  - Duly completed, sealed and signed statement on fulfilment of requirements from Art 75, paragraph 2 of the Public Procurement Law (Template 4, item 4.2);
  - Documents proving fulfilment of requirements from Art 75 and 76 of the Public Procurement Law in Template 4 table 4.1 of the Tender Dossier;
  - Duly completed, sealed and signed Template of technical characteristics-specification (Template 3);
  - Duly completed, sealed and signed Draft contract (Template 7);
  - Duly completed, sealed and signed Price structure template, with instructions how to complete it (Template 9);
  - Duly completed, sealed and signed Statement on independent tender (Template 10);
  - Bank statement on issuance of Performance Bond (Template 11, Appendix 1);
  - Bank statement on issuance of Advance Payment Guarantee (Template 11, Appendix 3) only in case that Tenderer requests advance payment;
  - Dynamic plan of the realization of service Initial setup of information sstem;
  - The manufacturer's technical documentation proving compliance with the requirements of Template 3 of the tender dossier.

If the tender does not contain all above elements, it will be rejected as unacceptable.

# **TENDER FORM**

3. Tenderer is made in writing in A4 format.

Tender is made by entering requested data in the templates that are integral parts of the Tender Dossier.

It is desirable that all documents in the tender are connected so that they can not be subsequently inserted, removed or replaced by single sheets, i.e. enclosures.

The Tenderer shall submit his tender in a sealed envelope.

Tender Template (Template 6) should be filled in according to given columns, by entering elements for avaluation of tender into the given template.

Tender must not contain the words entered between the lines, deleted word or words written one over another, except when necessary to correct the mistakes that Tenderer has made. In this case such corrections shall be verified by the Tenderer, otherwise the tender will be rejected as unacceptable.

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#### **TENDER WITH ALTERNATIVES**

4. Tender with alternatives is not allowed. The tender containing alternatives will be rejected as unacceptanble.

#### SUBMISSION OF TENDER

5. The Tenderer shall submit his tender directly in the archive of the Purchaser or by mail at the address of the Purchaser. The tenderer shall submit his tender in a sealed envelope, sealed in a way that during opening session it can be established with certainty that it is being opened for the first time.

The tenderer may submit only one tender.

Within the term for submitting of tenders, the tenderer may alter, amend or withdraw its tender. In this case, the tenderer will amendment, supplement or revocation of his tender submit in a sealed envelope with a note on the envelope that it is the amendment or revocation of tender. In case of amendment or supplement to the tender envelope must indicate the tenderer's name and the words "Amendment or supplement to the tender-DO NOT OPEN".

6. The Tenderer who submitted a tender independently may not at the same time participate in the joint tender or as subcontractor, nor can the same person participate in more joint tenders.

#### AMENDMENT OF TENDER DOSSIER

7. The Purchaser reserves the right prior to the deadline for submission of bids, or within the period defined by the Public Procurement Law, to make amendment and supplement of tender dossier.

Any amendment or supplement to the tender dossier will be published in the Public Procurement Portal of the Public Procurement Administration, www.portal.uin.gov.rs and the Internet address of the Purchaser www.beg.aero.

If the Purchaser amends or supplement tender dossier eight or fewer days before the deadline for submission of tenders, the Purchaser shall extend the deadline for submission of tenders and all tenderers will be notified of accordingly.

#### **TENDER WITH SUBCONTRACTOR**

- 8. In case the Tenderer acts with subcontractor he is obliged to submit as an integral part of the tender statement in which he will indicate that he will part of execution of the public procurement delegate to subcontractor/s, including:
  - Part of the subject public procurement tobe delegated to subcontractor/s;
  - The percentage of the total value of procurement to be delegated to subcontractor/ subcontractor/s:
  - Rules of procedure for the Purchaser in the case that due receivables are transferred directly to subcontractor/s.

# SUBMISSION OF JOINT TENDER

9. In the case of a joint tender, an integral part of a joint tender must be agreement in which the tenderers from the gourp of tenderers among themselves and towards the Purchaser undertake to execute subject public procurement, which shall contain the following information:

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- Member of the group who will be the holder of the job, i.e. submit the tender and represent the group before the Purchaser (authorized member):
- The tenderer who will on behalf of the group sign the contract;
- The tenderer who will on behalf of the group provide security instrument;
- The tenderer who will issue the invoice:
- The account to which the payment shall be made;
- Obligations of each of the Tenderer from the group of tenderers.

# PAYMENT, PLACE OF PROVISION OF SERVICE, DEADLINE FOR EXECUTION

**10.** The tenderer shall accept in the tender template manner and terms of payment:

The Tenderer is required to state the amount of the **required advance payment**, in the amount of **0% to 30%** of the total value of tender for the information system and the initial setup of information system.

The tenderer is obliged to accept that the rest of the amount, i.e. balance between of the total value of tender for information system and initial setup of information system and the amount required to be paid in advance, be paid within 30 days from the date of invoice receipt, upon provided service of initial setup of information system and the signing of the Minutes on takeover of information system.

For the service of support and maintenance the Tenderer shall accept deferred payment on a monthly basis with a term of 30 days from the date of invoice receipt for quality performed services in the previous month.

In case the Tenderer does not accent the above method and terms of payment, the tender will be rejected as unacceptable.

- 11. The tenderer shall accept the place of delivery Belgrade Nikola Tesla Airport otherwise the tender will be rejected as unacceptable.
- 12. The tenderer is obliged to accurately express deadline for execution of the service of Initial setup of information system (in days) in the tender template. The tenderer is obliged to offer the deadline of system setup not longer than 60 days from the date of contract signature. If the Purchaser to the date of signing of the contract does not have Bag Message service BMS implemented at the airport, the deadline for initial setup of the Information System shall be calculated from the date of completion of its implementation. Should the offered deadline be longer than 60 days the tender will be rejected as unacceptable.
- **13.** The tenderer is required to submit a schedule for implementation of the Initial Setup of Information within tender template (Template No.3). The schedule of implementation must be within the proposed service deadline.
- **14.** The Tenderer shall specify in the tender template the period of support and maintenance service expressed in months starting from the date of takeover of the system, otherwise the tender will be rejected as unacceptable.

Under the period of support and maintenance service the Purchaser means the period during which the tenderer shall provide the services, described in detail in Section 6 of the Technical Specifications.

#### **CURRENCY AND PRICE**

- 15. Tenderer may display prices in RSD or EUR.
- The prices quoted in the tender are given on delivery basis DAP Belgrade Nikola Tesla Airport (ex DDU) or DDP. The tenderer is obliged to express delivery basis for offered service. In the case of tenders made at different delivery basis, the Purchaser shall to Tenderers who have submitted tenders

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on delivery basis DAP add customs charges at the applicable customs tariffs in order to compare tenders from tenderers who have submitted tenders on delivery basis DDP. If the tenderer fails to specify delivery basis DAP or DDP, such tender will be rejected as unacceptable.

- If the tenderer gives the price in EUR, for the conversion of price into RSD use the middle exchange rate of NBS will be used, valid on the date when tender opening started.
- The price must include the cost of implementation of public procurement as per technical specification specified in Template 3 of tender dossier and all other related costs necessary for the implementation of public procurement.
- If the offered price includes import duty and other charges, the tenderer is required to show that part separately in RSD.

#### **VALIDITY OF TENDER**

**16.** Tender must have validity period of at least 90 days from the date of public opening session. Tender with shorter validity period will be rejected as unacceptable.

# INFORMATION LIKE NAME, ADDRESS AND INTERNET ADDRESS STATE AUTHORITY OR ORGANIZATION WHERE THEY CAN GET THE PROPER TIMELY INFORMATION:

- 17. Where to get correct data on:
- Tax liability the name of the state authority: Tax Administration (Ministry of Finance and Economy, Republic of Serbia), address: Save Maškovića 3-5, Belgrade, Serbia, Internet address: <a href="https://www.poreskauprava.gov.rs">www.poreskauprava.gov.rs</a>. Through state authority of the Tax Administration it is possible to get correct information about the address and contact phone of authority or territorial autonomy or local government on tax obligations, administered by these authorities.
- Environmental protection The name of the state authority: Environmental Protection Agency (Ministry of Energy, Development and Environmental Protection of the Republic of Serbia), address: Nemanjina 22-26, Belgrade, Serbia, Internet address: <a href="www.merz.gov.rs">www.merz.gov.rs</a> Address of Environmental Protection Agency: Roses Jovanovic 27a, Belgrade, Serbia, the Internet address of the Environmental Protection Agency: <a href="www.sepa.gov.rs">www.sepa.gov.rs</a>.
- Protection of employment, working conditions Ministry of Labour and Social Policy of the Republic of Serbia, address: Nemanjina 22-26, Belgrade, Serbia, Internet address: www.minrzs.gov.rs.

#### CONTRACT SECURITY INSTRUMENT

**18.** The Tenderer shall at conclusion of the Contract submit to the Purchaser bank Guarantee of seriousness of the tender (Bid Bond). Bank Guarantee (Template 11, Appendix 2) to the amount of 10% of the total value of tender for the Information System and Initial setup of Information System as a Performance Bond. In case the tenderer is based in a foreign country, he is required to submit a bank guarantee by SWIFT messages within thee (3) working days from the date of contract conclusion.

The bank guarantee shall be irrevocable, unconditional, without right to protest and payable on the first call.

Performance Bond shall have validity at least 15 days longer than the foreseen deadline for execution of the service of Initial setup of the system.

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Je WK Dimen K **19.** In case of advance payment the tenderer shall at conclusion of the Contract conclusion submit to the Purchaser bank guarantee (Template 11, Appendix 4) for the return of advance payment in the amount of requested advance payment.

The bank guarantee shall be irrevocable, unconditional and payable on the first call.

Advance Payment Guarantee shall have validity at least 15 days longer than the deadline for execution of the service of Initial setup of the system.

The Tenderer may submit a guarantee of the foreign bank only if the bank is granted credit rating which corresponds to at least level 3 credit quality (investment grade). Credit rating of paragraph 3 this article is assigned by rating agency that is on the list of eligible rating agencies which, for the rating which is in accordance with the regulations published by the National Bank of Serbia or eligible rating agency on the list of registered and certified rating agencies published by the European Securities and Markets Authorities – (ESMA).

#### CONFIDENTIALITY OF DATA AND DOCUMENTATION

**20.** Data which the Tenderer justifiably marks as confidential will solely be used for public procurement realization purpose and will not be available to anybody outside the circle of persons involved in the public procurement procedure. These data shall not be disclosed during tender opening nor during continuation of the procedure or later.

As confidential, the Tenderer may mark the documents containing personal information, which are not in possession of any public registry nor available in any other way, as well as business data which are marked confidential by regulation or internal acts.

As confidential the Purchaser shall consider documents containing word "CONFIDENTAL" written in capital letter in top right corner.

The Purchaser is not responsible for confidentiality of information which are not marked in the abovementioned way. In case the data which do not respond to the above-mentioned conditions are marked as confidential, the Purchaser will invite the Tenderer to remove the confidentiality note. The authorized representative of the Tenderer will do that by writing "CANCELATION" above the confidentiality note, writing the date and time and signing.

If the Tenderer does not cancel the confidentiality of documents, The Purchaser shall consider this tender as tender without confidential information.

Tenderer cannot mark as confidential the price and other information from the tender relevant for implementation of criterion elements and ranking of tenders.

#### ADDITIONAL INFORMATION OR CLARIFICATIONS

- **21.** If any clarifications with the reference to these instructions are necessary, the Tenderer may request additional information or clarifications in writing regarding preparation of tender not later than 5 days before expiry of tender submission deadline. Request for additional information or clarifications is submitted in one of the following ways:
- By mail to the address: JSC Belgrade "Nikola Tesla" Airport, 11271 Surcin with indication: "Additional information or clarifications for public procurement No.8/2013 "BAGGAGE RECONCILIATION SYSTEM BRS" for the Committee President- Nenad Sakić".
- By e-mail: javnenabavke@beg.aero.

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#### **FURTHER EXPLANATIONS, CONTROL AND ALLOWED CORRECTIONS**

**22.** Purchaser, during the expert evaluation of the tenders may require additional explanations from tenderers that will help him in the examination, evaluation and comparison of tenders, and may exercise control (insight) with the tenderer, i.e. his subcontractor.

Purchaser may, with the consent of the tenderer, correct calculation errors observed when considering tender after the tender opening session. In case of differences between the unit price and total price, the prevailing price is the unit price. If the tenderer does not agree with the correction of calculation errors, the Purchaser will reject his tender as unacceptable.

#### **NEGATIVE REFERENCES**

23. The Tenderer who has a negative reference in the field, which is not the same type of public procurement shall contractual obligations security instrument from items 18 and 19 in the manner and within the time limits set out in items 18 and 19, but in the amount of 15% of the offered value.

#### **CONTRACT AWARD CRITERIA**

**24.** The criterion for avaluation of tenders is the economically most favourable tender.

Elements of the criteria for selection of the most favorable tender are

Ser.No.	Elements of criteria	Maximum
		number of points
1.	Offered price	80
2.	Support and maintenance service period	10
3.	Cost effectiveness	10
	TOTAL:	100

#### 1. Total value of tender

Tender with the lowest total value (C. min) receives the maximum number of points Number of points of other Tenderers (C.v) shall be calculated according to the total value offered by particular Tenderer (C.p) that is according to the following formula:

C.min - the lowest total value of tender, from all submitted tenders C.p - offered total value of the tender

2. Support and maintenance service period

Number of points will be calculated according to the offered period to provide support and maintenance, based on the following table:

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0 months - 12 months	Unacceptable tender
12 months and one day - 18 months	0 points
18 months and one day - 24 months	5 points
24 months and one day - 36 months	10 points
36 months and one day and up	15 points

#### 3. Cost effectiveness

Cost-effectiveness will be calculated on the basis of an estimated period of use of the system for 10 years (120 months), using the following formulas:

$$Tn = Kn+Dn \times 120$$

Tn - the total value of the offer on the basis of the assumed period of use of the system for 10 years (120 months)

Kn - sum of bid values for Information system (B) and the value of the Service initial Setup of Information system (V)

Dn - Bid value for the service Support and Maintenance on a monthly basis (D)

120 - Assumed period of use of the system for 10 years (120 months)

Number of points for particilar bidder will be calculated in a following way

Pn - the number of points for particular bidder, based on the previously calculated total bid value, based on the assumed period of use of the system for 10 years (120 months)

Tn - the total value of the offer on the basis of the assumed period of use of the system for 10 years (120 months) for a particular bidder

Tn.min - the lowest total bid value based on the assumed period of use of the system for 10 years (120 months)

#### SPARE CRITERION FOR CONTRACT AWARD

**25.** If, after a professional evaluation of the tenders, two or more Tenderers have the same total number of points, priority will be given to the Tenderer with the higher number of points according to the criterion of offered price.

#### **ADDITIONAL CONDITIONS**

- 26. The Tenderer shall complete and certify the statement in item 4.2., Template 4 of the Tender dossier as evidence that, in preparing his tender, he respected the obligations arising from current regulations on safety at work, employment and working conditions, environmental protection, and guarantees that he is the holder of intellectual property rights.
- **27.** Liability for the use of patents, as well as liability for breach of protected intellectual property rights shall be borne by the Tenderer.

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#### PROTECTION OF TENDERER'S RIGHTS

- 28. In case the Tenderer considers that his rights have been violated during public procurement procedure, he may file a request for protection of rights, i.e. act pursuant to provisions of the laws regulating the procedure for protection of rights (Art 148-159 of the Public Procurement Law).
- 29. Claimant shall pay the administrative tax prescribed by Art. 156 of the Public Procurement Law to the budget account of Republic of Serbia No: 840-742221843-57. Money order is filled in with following data:
  - Purpose of remittance: republic administrative tax for public procurement (number and name of the subject of public procurement);
  - Beneficiary: Budget of Republic of Serbia:

Payment code: 153;

Gyro account number: 840-742221843-57;

Module: 97;

Reference number: 50016.

#### **DECISION ON AWARD OF CONTRACT**

**30.** The Purchaser shall make decision on contract award within 25 days from the date of tender opening.

# DELIVERY OF DECISION, CONCLUSION OF CONTRACT AND NOTIFICATION ON CONCLUDED CONTRACT

- **31.** The Purchaser shall submit decision on award of the contract to all the tenderers within three (3) days of the decision.
- **32.** The tenderer whose tender is selected as the most favourable, shall conclude public procurement contract with the Purchaser within 8 days, at the latest, from expiry of the deadline for applications for the Protection of Rights under Article 149 of the Public Procurement Law.

If the Purchaser fails to submit signed contract to the Tenderer in the said period, the Tenderer is not obliged to sign the contract, which shall not be deemed a waiver of the tender and can not therefore bear any consequences, unless the request for the protection of rights is filed.

If the Tenderer refuses to enter into a public procurement contract, the Purchaser may conclude the contract with the first following Tenderer.

In the case of the preceding paragraph, if due to methodology for allocation of points it is necessary to determine the next most favourable Tenderer, the Purchaser will again carry out evaluation of tenders and decide on the award of the contract.

Notification on concluded public procurement contract shall be posted on the Public Procurement Portal within 5 (five) days from the date of contract conclusion.

#### PERMITS FOR MOVEMENT IN AIRPORT RESTRICTED AREAS

**33.** Selected Tenderer shall, for the purpose of providing services in the restricted area of the complex of JSC Belgrade Nikola Tesla Airport, provide, at its own expense, permits for movement and stay at the border crossing area for all his employees that will do the job. Permits are issued by the Strana **56** od 73

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Ministry of Interior of the Republic of Serbia, Border Police Station "Belgrade" at the Belgrade Nikola Tesla Airport. Purchaser does not bear damage caused by the refusal of police to issue or extend permit to a certain employee of the supplier. If the supplier is unable to obtain the necessary permits for movement and stay at the border crossing at the Belgrade Nikola Tesla Airport, for his employees, previously concluded contract is terminated at the expense of the Tenderer. Purchaser will provide technical support to the Supplier at issuing of permits.

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# 6. TENDER TEMPLATE

Tender of the Tenderer for public procurement "BAGGAGE RECONCILIATION SYSTEM - BRS No. 8/2013

Name of the Tendere	er:			
Address of the Tenderer:				
Headoffice (City and	Municipality):			
Registration No.:	, TIN:			
Web site:	, e-mail:			
Telephone number:	, Telefax:			
Tenderer's account N				
Tender is submitted:	(encircle)			
A) independetly	B) tender with subcontractor V) joint tender			
B) Enter data on sub	ocontractors (if tender is submitted with subcontractor/s):			
1. in execution of prod	curement subcontractor:			
Address:	, Registr. No:, TIN:			
Authorized person:				
with	% participation (not more than 50%) performs the following:			
2. in execution of prod	curement subcontractor:			
Address:	, Registr. No:, TIN:			
Authorized person:	, Tel. No.:			
with	% participation (not more than 50%) performs the following:			
49161				
3 in execution of proc	urement subcontractor:			
Address:	, Registr. No:, TIN:			
Authorized person:	, Tel.No.:			
with	% participation (not more than 50%) performs the following:			
WILL				
V) Enter data of othe	er participants in joint tender (if tender is submitted as joint tender):			
<b>*</b>	Address:			
	, TIN:, Tel.No.:			
	, Account No:			

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2.	Address:	
Registr.No.: ,	TIN:	, Tel.No.:
Contact person:	, Account No:	
Total value of tender: BELGRADE NIKOLA TESLA AIRPO		on delivery basis (DAP
Tender value for Information system		RSD/EUR w/o VAT. (B)
Tender value for the service Initial S RSD/EUR w/o VAT. <b>(V)</b>		
VAT. <b>(G)</b>		RSD/EUR w/o
Tender value for the service Suppor RSD/EUR w/o VAT. <b>(D)</b>	·	
Period of provision of service Suppo	ort and Maintenance is	months starting with the date
Note: A= B+V+G		
G= DxI Manner of payment:		
<ul> <li>Advance payment in the ar</li> </ul>		the total value of offer for Information in 30 days from the date of advance
Information System (B+V) v	within 30 days from the date of inv	ormation System and Initial Setup of voice receipt uponperformed service of finutes on takeover of the Information
of invoice receipt for quality	performed services in the previous	thly basis, within 30 days from the date s month.
Warranty period for delivered hardwords signing the Minutes on takeover of	are of Information System is	(min. 24) months from the date
Deadline for execution of service Init the date of Contract sighing.	tial Setup of Information system: _	day (maximum 60) days from
Delivery time for hardware is	days from the date of contract of	conclusion.
Place of provision of service is Belgr	ade Nikola Tesla Airport.	
Tender validity (minimum 90 days):_	from the	date of tender opening.
Place and date:	STATE OF THE PARTY	Authorized person signature:
	L.S.	

#### 7. DRAFT CONTRACT

NOTE 1: TENDERER SHALL FILL-IN DRAFT CONTRACT, PUT SIGNATURE AND SEAL ON THE LAST PAGE, CONFIRMING THAT HE AGREES WITH THIS DRAFT CONTRACT.

NOTE 2: THIS DRAFT CONTRACT REPRESENTS CONTENTS OF THE CONTRACT TO BE CONCLUDED WITH THE SELECTED TENDERER. IF THE TENDERER WITHOUT ANY JUSTIFIED REASON REFUSES TO CONCLUDE THE CONTRACT ON PUBLIC PROCUREMENT OF THIS CONTENT, AFTER HE IS AWARDED THE CONTRACT, THE PURCHASER SHALL SUBMIT PROOF OF NEGATIVE REFRENCE TO THE PUBLIC PROCUREMENT OFFICE.

#### SUPPLY CONTRACT

2013, between:

Concluded based on completed public procurement procedure No. 8/2013 per procurement plan for JSC Belgrade «Nikola Tesla» Airport, 11180 Beograd 59, represented by General Manager, Velimir Radosavljević, TIN 100000539; Registration No. 07036540; current account: 125-1721427-98 with Piraeus Bank (hereinafter referred to as the Purchaser), on one side and Name of the Tenderer: with head office in represented by the Director \_\_\_\_\_;
Registration No. \_\_\_\_\_;
current account No. \_\_\_\_\_; (hereinafter referred to as the Supplier) on the other side I SUBJECT OF THE CONTRACT Art. 1 Subject of this Contract is procurement of "BAGGAGE RECONCILIATION SYSTEM-BRS" No.8/2013 for requirements of the Purchaser and as per Supplier's Tender filed in Purchaser's archive under No. dated 2013. Tender of the Supplier and Tender Dossier for subject public procurement are integral parts of this Contract.

#### II MANNER OF PROVISION OF SERVICE

Art. 2

Goods from Art.1 of this Contract for requirements of the Purchaser understand the following:

#### **INFORMATION SYSTEM**

- Hardware
- Software

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# • INITIAL SETUP OF INFORMATION SYSTEM

- o Implementation of Information System
  - I) Needs analysis, system design, management of implementation project
  - II) Installation and Configuration of the system
  - III) Integration
  - IV) Evaluation a test period
  - V) Commissioning
- o Training
  - I) Training in the use of the Information System
  - II) Training for first level maintenance of information system

# SUPPORT AND MAINTENANCE

Warranty period

the system by the Purchaser.

- o Preventive and corrective support and maintenance
- o Reporting and Statistics

The Supplier undertakes to start the service Support and Maintenance upon completion of the service Initial Setup of Information System and after system takeover, i.e. signed Minutes on the system takeover.

#### III PRICE

#### Art. 3

Total v	alue	of	contract	is _	\ \VAT evaluded on delivery basis	RSD/EUR (in
BELGRAD	words					
Value of In	/alue of Information System amounts toRSD/EUR w/o VAT.					
Value of th VAT.	ne servic	e Initial	Setup of	Information	on System amounts to	RSD/EUR w/o
Value of th	Value of the service Support and Maintenance amounts toRSD/EUR w/o VAT.					EUR w/o VAT.
Value of the service Support and Maintenance on monthly basis amounts toRSD/EUR w/o VAT.						
IV MANNER AND TERM OF PAYMENT  Art. 4						
The Purchaser shall effect payment within 30 days from the date of invoice receipt.						
Advance payment invoice in the amount of% of the total value for Information system and Initial Setup of Information System, the Supplier will issue upon conclusion of the Contract and provision of Advance Payment Guarantee.						
nvoice for the balance of% of the total value for Information System and Initial Setup of nformation System, the Supplier will issue upon fullfilled obligations and signed Minutes on takeover of						

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For service Support and Maintenance, the Supplier will issue invoice to the Purchaser on monthly basis for the previous month, together with monthly reports on provided services.

The Purchaser will advise the Supplier when funds are available by adoption of the Business Plan for 2014 or by the decision of temporary financing. The purchaser will not issue orders as described in Article 4 unless funds are provided by the business plan or by the decision on temporary financing.

For the avoidance of doubt, the notice of termination does not release the Parties (i.e. Supplier and Purschaser) from the proper performance of this Contract, in particular effecting any payments for supply orders placed by Purchaser.

#### V TIME AND PLACE OF PROVISION OF SERVICE

#### Art. 5

Delivery time for hardware isdays from the date of conclusion of contract.
Deadline for completion of service Initial Setup of Information System upto the phase of putting system into operation for Information System from Art.1 of this Contract is days (maximum 60) from the date of conclusion of the Contract. If the Purchaser to the date of signing of the contract does not have Bag Message service - BMS implemented at the airport, the deadline for initial setup of the Information System shall be computed from the date of completion of its implementation.
The Supplier will render service Support and Mainternance from Art.1 of this Contract in the period ofmonths, starting from the date of system takeover.

Place of provision of service from Art.1 of this Contract is Belgrade Nikola Tesla Airport.

#### VI SCHEDULE OF PROVISION OF SERVICE

#### Art. 6

The provision of service from Article 1 this Contract shall be made by the schedule set by the Supplier with the consent of the Purchaser. The supplier shall within the service of Initial Setup Information System submit to the Purchaser schedule of activities, respecting the offered deadline for provision of the service.

#### VII QUANTITATIVE AND QUANTITATIVE ACCEPTANCE

#### Art. 7

The Supplier undertakes to appoint after conclusion of the contract expert, i.e. project manager, who will be before the Supplier in charge of managing the project and controling the quantity and quality of delivery of Information System and provision of the service of Initial Setup of Information System.

The Purchaser undertakes upon conclusion of the contract to appoint team of experts who will before the Purchaser be responsible for co-operation with the Supplier regarding delivery of Information System and execution of the service of Initial Setup of Information System and who will supervise the quality and quantity, and the dates of execution.

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JE per Bivien Ve If a team of experts during delivery of Information System and provision of the service of Initial Setup of Information System notices any defects or irregularities, they will make a report on it and notify project manage of the Supplier, based on which the Supplier is obliged to eliminate the deficiencies and defects within thirty (30) days, at his own expense.

The Contractual Parties shall carry out quantitative and qualitative acceptance of the hardware of Information System, upon its arrival to Airport Nikola Tesla, as well as service of Initial Setup of Information System, upon written notice by the Supplier that hardware is delivered and service provided.

Quantitative and qualitative acceptance will be done by comparing the quantity and quality of the elements of delivered Information System and rendered service of Initial Setup of Information Sistem with the elements and requirements of the technical specification.

If the quantity and quality acceptance establishes that the quantity and quality of delivered Information System and rendered service of Initial Setup of Information System differ from the elements of the technical specification, the Purchaser shall make a report on it, based on which the Supplier is required to deliver the shortage of goods and render unrendered service within perform the missing service within thirty (30) days, at his own expense.

After completion of the quantitative and qualitative acceptance and provision of the certificate from the Civin Aviation Directorate of the Republic of Serbia, the Contracting Parties shall perform takeover of the system and make and sign the Minutes on takeover of Information System.

# **VIII QUALITY, WARRANTY AND LIABILITY**

#### Art. 8

The Supplier shall deliver goods and provide service under Article 1 this Contract in all as per requested technical specification and with due professional care.

Supplier shall, at the conclusion of the Contract, submit to the Purchaser Performance Bond in the amount of 10% of the total value of Information System and Initial Setup of Information Systems. If the supplier is based in a foreign country, he is required to submit a bank guarantee by sending the SWIFT message sent to a business bank of the Purchaser within three (3) working days from the date of conclusion of the contract, otherwise the contract will be considered null and void. The bank guarantee will be irrevocable, unconditional, without right to protest and payable on the first call. Performance Bond will be valid at least 15 days longer than the deadline for execution of the service Initial Setup of Information System.

Supplier shall, at the conclusion of the Contract, submit to the Purchaser Advance Payment Guarantee for return of advance payment in the required amount of advance payment. Advance Payment Guarantee will be irrevocable, unconditional and payable on the first call with a validity of 15 days longer than the deadline for execution of the service Initial Setup of Information System. If the supplier is based in a foreign country, he is required to submit a bank guarantee by sending the SWIFT message sent to a business bank of the Purchaser within three (3) working days from the date of conclusion of the contract. Until submittion of the bank guarantee contract is concluded under the suspensive condition.

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#### Art. 9

For the hardware part of the Information System the Supplier provides warranty period in accordance with the accepted offer of \_\_\_\_\_ months.

The Supplier undertakes to eliminate during the warranty period any perceived failure of the hardware part of the information system he delivered (under warranty conditions of the manufacturer), within thirty (30) days from the date of received written invitation from the Purchaser.

If the Purchaser, after provision of service, or within thirty (30) days at the latest from the takeover date finds deficiencies in the quantity and quality that could not be observed at the quantitative and qualitative acceptance, he shall promptly notify the Supplier in writing about it and to invite him to eliminate within thirty (30) days all deficiencies. Costs of eliminating deficiencies in quantity and quality are borne by the Supplier.

In the event that the Contracting Parties may disagree about the shortcomings in quality and quantity, it will be determined by expert assessment at the expense of the supplier.

#### Art. 10

In case the deadline for execution of the service Initial Setup of Information System is exceeded, the Supplier undertakes to pay to the Purchaser liquidated damages for each day of delay at the rate of 0.3% of the total value (VAT excluded) set in Art.2, paragraph 3 of this Contract.

In case the Supplier fails to provide requested availability of sstem software of 99.6% on measured on an annual basis, he undertakes to pay to the Purchaser damages for each hour in excess of maximum allowable time of system failure defined by above, at the rate of 0.1% of the value (VAT excluded) set in Art.2, paragraph 4 of this Contract.

Maximum value of liquidated damages is 10% of the value set in Art.2, paragraph 1 of this Contract.

The Supplier is not entitled to pay the damages and waive the Contract.

# Art. 11

Should the Supplier fail to perform obligations set in this Contract the Purchaser in entitled at his own discretion to proportional reduction of price and unilateral termination of the Contract. In case of unilateral termination of the contract, the Purchaser shall leave the Supplier additional 30 days for fulfilment of his contractual obligations. Should the Supplier fail to fulfil contractual obligations within this additional period, the Pursher is entitled to termination of the Contract.

#### IX OBLIGATIONS OF THE PURCHASER

#### Art. 12

The Purchaser shall provide space for servers and other central equipment of Information System within the main server room with the right conditions (rack cabinets, a sufficient number of electrical connections, airconditioned space, uninterruptible power supply).

The Purchaser shall provide the ability to connect to the computer and communications network of the Belgrade Nikola Tesla Airport (Fast Ethernet, Gigabit Ethernet, cat 6 cables and multimode optical fibers).

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#### X PROPERTY RIGHTS AND CONFIDENTIALITY

#### Art. 13

All intellectual property rights of application software implemented by the Supplier in accordance with this Contract are licensed and owned by the Supplier.

The Purchaser shall have the right of permanent use of application software, system software and other software elements in accordance with the provisions of this Contract.

The Contracting Parties agree that the entire software and documentation issued by the parties necessary for the implementation and development of the software and any kind of adjustments in order to meet contractual obligations fall within the confidential data. All information acquired by the parties will be kept confidential. Access to this information may be made available only to authorized persons of contracting parties and relevant authorities in accordance with the law on public procurement and other regulations in the Purchaser's country.

#### XI TRANSITIONAL AND FINAL PROVISIONS

#### Art. 14

This Contract comes into force on the date it is signed by authorized representatives of contractual parties.

# Art. 15

Contractual parties agree that all issues not being covered by this Contract are governed by provisions of the Law of obligations of the Republic of Serbia.

#### Art. 16

All possible disputes arising from implementation and execution of this Contract, the Contractual parties shall endeavor to settle in an amicable manner according to goods business practices.

For settlement of disputes which could not be settled in the manner from paragraph 1 of this Article the competent court will be the Commercial Court in Belgrade.

#### Art. 17

This Contract is made in 4 (four) identical copies, 2 (two) for each contractual party.

The SUPPLIER: The PURCHASER:

JSC Belgrade "Nikola Tesla" Airport

Director General Director

Velimir Radosavljević

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# 8. PRICE STRUCTURE TEMPLATE WITH INSTRUCTION HOW TO COMPLETE IT

Tende	erer's name:					
Address:			rer's CURREN	NT ACCOUNT	 Г No.:	
Telep	hone:	<u> </u>				<del></del>
Fax:						
E-ma	il:					
TIN:	Nation (Gilleren					
5	chaser: Belgrade Nikola Tesla Airpo	rt		I issue the fo	ic procuremer Illowing Price	nt
No.	PRICE STRUCTURE ELEMENTS BY ITEMS	Quantity	Unit price w/o VAT	Unit price with VAT	Total price w/o VAT	Total price VAT included
1. 2.						
3.						
4.						
			Total VAT:			
	ТО	TAL PRICE	WO VAT:			
***************************************	тот	AL PRICE	WITH VAT:			
Place	and date:		Name	e of the Ton	derer, author	izad
				on signature		ルブロ

• The table above is a model that contains a minimal data of price structure template. Price structure template is given in the form in which the tenderer can show all the elements the price is made of.

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#### Instruction how to complete price structure template

- Tenderer must submit price structure template as a compulsory part of Tender Documentation,
- Template must be completed in hand writing or on a computer printer or a type writer, in the form suitable for the Tenderer,
- Template must be signed by authorized person of the Tenderer,
- Column "PRICE STRUCTURE ELEMENTS BY ITEMS" should be completed in such a manner to contain all expenses included into total offered price, which can be presented separately.
- The minimum content of the price structure is provided in the table which is the integral part of this template of the tender dossier. In case the price structure template does not contain at least as much data as listed in the table, the Purchaser shall consider that price structure template is not made and will reject such tender as unacceptable.
- Prices from this Template must be stated in the same currency in which the Tender was given.

S. I has been been by the state of the state	JN 00010 ILIN LATE
VARVOVENIN VIVIN V	
	(state the name and headoffice of the Tenderer)

A TENDED DDEDADATION COCTS TEMPI ATE

Place and date: \_\_\_\_\_

In accordance with Art.88 of the Public Procurement Law (" Official Gazette of the Republic of Serbia", br.124/12) and Art.6 and 19 Regulations on the mandatory elements of tender documentation in public procurement procedures and the manner of proving eligibility (" Official Gazette of the Republic of Serbia", br.29/13) we deliver cost structure for the preparation of tender for public procurement of 8/2013 "BAGGAGE RECONCILIATION SYSTEM-BRS", as follows:

Ser.No.	Type of costs	Amount in RSD/EUR
1		
2		
3		
4		

Note: Pursuant to Art.88, Paragraph 2 of the Public Procurement Law, costs of preparing and submitting the tender shall be borne solely by the tenderer and he can not ask the Purchaser for reimbursement of costs, except in the case referred to in paragraph 3 of the same article, if the procurement procedure is suspended for reasons on the Purchaser's side, provided that the Tenderer requested reimbursement of costs in his tender.

Person signature and seal

Name of the Tenderer, authorized

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# 10. STATEMENT ON INDEPENDENT BOND

STATEMENT		
(state the name and head	loffice of the Tenderer)	
In accordance with Art.26 and 61, Paragraph 4, item of RS''' No.124/12), under full moral, material and compublic procurement open procedure 8/2013 "BA submitted independently, without any agreement with	criminal responsibility I declare that the tender in a AGGAGE RECONCILIATION SYSTEM-BRS" is	
Place and date:		
	Name of the Tenderer, authorized Person signature and seal	

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# 11. GUARANTEE TEMPLATES

#### **APPENDIX 1**

#### BANK STATEMENT ON ISSUANCE OF THE PERFORMANCE BOND

We unconditionally undertake at conclusion of the Contract to issue to the Purchaser, JSC Belgrade Nikola Tesla Airport, security instrument – Performance Bond in the amount of 10% of the value of tender for public procurement 8/2013 "BAGGAGE RECONCILIATION SYSTEM-BRS", as a guarantee for good execution of the job.

The Bank guarantee will be irrevocable, unconditional, without protest or notification, payable on first demand.

We are agreeable that, upon Purchaser's demand, the issued security instrument can be submitted to the bank in case of contract termination, non-fulfilment of contractual obligation or delay of fulfilment of contractual obligation. Bond validity shall be 15 days after the date set for provision of the service Initial setup of the systm.

Date:	Seal and signature of guarantor (bank)
a CAMINAL AND PROPERTY OF THE	

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# **APPENDIX 2**

# PERFORMANCE BOND TEMPLATE

Bank's name			
Place and address			
Bond user			
(Purchaser)			
Bond number		Date:	
In accordance with T	ender No.	dated:	A CONTRACTOR OF THE CONTRACTOR
JSC BELGRADE "I 11180 BELGRADE Republic of Serbia and Tenderer's name Place and address of For		<b>F</b>	
		GGAGE RECONCILIATION SYSTEM-B ELGRADE NIKOLA TESLA AIRPORT	RS" FOR
and quality defined in On Purchaser's d	in the above-mentioned Ten lemand nout right to protest, that the	and in words ( der. by this bond we undertake e Tenderer will perform its contractual o	rrevocably and
unconditionally, with	nout protest or notification, o	from the previous item, the Bank on first written demand of the Purchase _, which is 10% of total contracted amo	r effect payment
This bond has valid System.	ity 15 days after the date se	et for provision of the service Initial Setu	p of Information
All possible disputes	s between the Bond user an	d the Bank will be settled by competent	court.
This bond is made Tenderer and the Ba		e) original for the Purchaser and the to	vo other for the

Guarantor (seal and signature)

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# BANK STATEMENT ON THE ISSANCE OF ADVANCE PAYMENT GUARANTEE

We unconditionally undertake to issue to the Purchaser, JSC Belgrade "Nikola Tesla" Airport, at conclusion of the Contract, security instrument – bank guarantee in the amount of requested advance payment for public procurement 8/2013 of "BAGGAGE RECONCILIATION SYSTEMBRS" as guarantee for return od advance payment. The bank guarantee will be irrevocable, unconditional and payable on first call.

We agree that, on request of the Purchaser, issued contractual obligation security instrument may be presented to the bank in case of termination of Contract, failure to fulfill contractual obligation or delay in fulfillment of contractual obligation. Validity of the guarantee will be five days after the date of delivery of the subject of public procurement.

Date:	Seal and signature of guarantor (bank)

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# **APPENDIX 4**

# ADVANCE PAYMENT GUARANTEE TEMPLATE

Name of the bank	
Place and address	
Guarantee's beneficiary	
(the Purchaser)	
(the ruichaser)	
Guarantee No:	Date:
In compliance with Tender No:	of:
JSC BELGRADE "NIKOLA TESLA" AIRPORT 11180 BEOGRAD 59 Republic of Serbia and Name of the Tenderer Tenderer's place and address	
for	
	GAGE RECONCILIATION SYSTEM-BRS" FOR GRADE "NIKOLA TESLA" AIRPORT
which total contracted value amounts to).	RSD and in words:
On request of the Tenderer: we unconditionally that the Tenderer will fulfil its column and quality.	undertake with this Guarantee irrevocably, ntractual obligation within the contracted scope, terms
unconditionally and on first written request of the	rom the previous paragraph the Bank will irrevocably, ne Purchaser, effect payment to the Purchaser of the irn of advance payment.
Validity of this guarantee is five days after the day	te of delivery of the subject of public procurement.
Possible disputes between guarantee's beneficia	ry and bank will be settled by the competent court.
This guarantee is being issued into three copies, Tenderer and the Bank.	one original for the Purchaser, and two copies for the
Garantor (	seal and signature)

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