REPUBLIKA SLOVENIJA
MINISTRSTVO ZA OKOLJE, PODNEBJE IN ENERGIJO

Republic of Slovenia – Ministry of the Environment, Climate and Energy

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Request for Information

Modernisation of the central information system supporting the integrated public passenger transport in Slovenia

1. Introduction

1.1. Our invitation

Pursuant to Article 64 of the Public Procurement Act (Official Gazette of the Republic of Slovenia [*Uradni list RS*], Nos 91/15, 14/18, 121/21, 10/22, 74/22 – Constitutional Court Decision, 100/22 – ZNUZSZS, 28/23 and 88/23 – ZOPNN-F; hereinafter: the ZJN-3) and other provisions of the ZJN-3 pertaining to a request for information (hereinafter: the Request for Information – the RFI), the Ministry of the Environment, Climate and Energy (MOPE) invites all potential providers to submit their provisional bids for the public procurement project "Modernisation of the central information system supporting the integrated public passenger transport in Slovenia".

1.2. Definitions

DUJPP – PTA of Slovenia (*Družba za upravljanje javnega potniškega prometa*)
IJPP – Integrated public passenger transport (*Integrirani javni potniški promet*)
ABT – Account-based Ticketing System
EMV – Standard developed by Europay, Mastercard and Visa cooperation.
cEMV – Contactless EMV
MTT – Mass Transit Transaction (Visa)
PAYG – Pay As You Go (Mastercard)
Kernel – An EMV Kernel is a piece of software capable of communicating with an EMV ICC (card chip) and processing a transaction correctly

2. Purpose of the Request for Information (RFI)

This Request for Information (RFI) is issued by the Ministry of the Environment, Climate and Energy of the Republic of Slovenia (MOPE) and seeks to obtain market feedback in relation to the modernisation of the central information system supporting the integrated public passenger transport in Slovenia. The primary focus is to better understand market/supplier expectations, capacity and capability, as well as perceived risks and opportunities.

MOPE established *Družba za upravljanje javnega potniškega prometa* (DUJPP – PTA of Slovenia). DUJPP is the integrated transport authority responsible for managing integrated public transport in Slovenia. DUJPP will manage public transport with buses and railways, dealing with 20 PTO contracts for the time being, and four in the future (the new contracts were recently signed with MOPE).

2.1. Programme scope

This request for information will provide MOPE with valuable input before deciding to procure new systems such as:
- suppliers and devices currently available on the market
- any challenges identifiable by suppliers, based upon the business needs and preliminary requirement areas described below
- how MOPE can adapt the requirements to align with the latest developments in the market
- whether there are other options or services that MOPE should take into consideration
- suggestions for standard and extended functionality
- suggestions for administrative functions (e.g. inventory and alarm management)

The main lots of the RFI are:
- Systems Integration Services
- ABT Back Office System with AVL
- Validators and Payment Services
- Timetable Management System

Table 1: Systems Architecture Overview

Sub-System	Description
System Integrator	The System Integrator manages the overall systems engineering of the subsystems and components to ensure that they operate as one cohesive system to provide specified functionality and customer outcomes.
	This includes:
	• assuring that the requirements are being met
	• providing accreditation in accordance with the requirements of any applicable laws, regulations, guidelines, or ordinances
	• maintenance of the suite of documents and structures that provide the framework for the successful engagement of multiple vendors during the IJPP system development and delivery
	• ensuring that vendors implement the agreed systems engineering processes.
Account-based ticketing Back Office	The ABT Back office is a modular revenue management and customer management system that provides the data processing and storage capabilities required to enable account-based fare collection including:
	• account management
	• fare calculation
	• payment processing
	• financial management
	• customer service
	• product sales
	• reporting and analytics
	• risk and fraud management
	• barcode and QR code ticketing
	• Driver's Console
	• On-board computer and AVL
	• On-board Announcement Speaker
	• On-board Announcement Display
	• Connectivity (mobile) services
Validators and Payment Acquiring Services	Validators are used to tap on and off public transport and include:
	• gate validator and gate management system
	• fixed location validator
	• hand-held validator
	• bus validator
	• bus solution
	The Payment Provider receives data from contactless payment card taps

Sub-System	Description
	and subsequently converts the card payment data into encrypted tokens. The Payment Provider then sends encrypted tokens to the back office for the fare calculation. The Payment Provider also implements the payment scheme transit rules to process the payment transaction.
	The acquirer facilitates three different payment scenarios:
	• MOPE charges fares to debit and credit cards, which are used to tap on and off the IJPP network, and thus allows MOPE to receive revenue from this stream.
	• MOPE charges fares to IJPP ID/payment cards, which are used to tap on and off the IJPP network, and thus allows MOPE to collect the funds from ABT End-Customer-Accounts, which were pre-top-up or prepurchased products (monthly, yearly passes)
	• e-commerce
	• card transactions through the Ticket Vending Machine / Self-Service Machine
Timetable Management system	The timetable management system includes:
	• Creation and update of network data, including stops and routes
	• Creation and update of timetables, including the designation of specific stops as timing points
	• Scheduling System to create trips, either manually or automatically based on constraints such as:
	o specified timing points
	o headway
	o frequency - vehicle type
	o working day and maximum target vehicle mileage constraints
	o minimizing repositioning of asset
	o relief points
	o interworking requirements
	• Printed timetables
	• Planning and simulation tools
	• Reporting

2.2. Implementation

MOPE will accept a variety of hosting options. The bidder should clearly indicate which options are available with their solution and include pricing for all available options. Pricing MUST INCLUDE all required first- and third-party licenses, hardware and software, as appropriate for each option.

2.2.1. On-premises/hosted

In this model, the bidder specifies a hardware solution designed to run at MOPE premises or a nearby data centre. Bidder should include all necessary hardware and necessary third-party software in their pricing. MOPE would prefer a solution capable of running within a virtualized environment.

2.2.2. Private cloud

In this model, the solution is hosted in a third-party cloud environment. The bidder should describe the server requirements (CPU, RAM, storage, anticipated bandwidth, etc.) when hosted in this type of environment. In this model, MOPE would contract with the cloud provider.

2.2.3. Fully hosted by the bidder (SaaS model)

In this model, the solution is provided as a service. The bidder should clearly state the ongoing fees associated with this model, especially as the fleet, network, or number of users increases.

3. IJPP today

3.1. A brief description of the current IJPP system

The central information system supporting the integrated public passenger transport in Slovenia (hereinafter: the IJPP) roughly consists of the following elements:
- the server hardware (at the main/primary location and the secondary location)
- terminal equipment on JPP vehicles (buses and trains) and for ticket inspectors (mobile terminals PAX S900, Q90 and Q92)
- ticket sales points (using card readers and the CPA sales application)
- cards used (Mifare Desfire EV1 and EV2)

In terms of content, it consists of:
- the ticketing system (including sales and validations)
- the timetable entry and confirmation system
- the subsidy system (which is technically separate but is part of the ticketing system in terms of content)

The IJPP covers the activities of processing applications for subsidised tickets, issuing tickets, managing ticketing transactions, reporting and timetables or transportation systems (fare scales, the national timetable, downloading operator timetables, etc.) This part is therefore the central processing centre of IJPP ticketing transactions.

Other systems, which are connected to the central system (either automatically or manually), include the online application Transportation Subsidies, Excel reports, the Avris timetable system (phasing out) and in certain parts the operators' information systems.

The acquisition of passenger data for subsidised tickets is also carried out via the national service Pladenj, as well as connectivity with the services of the e-Government portal, and certain data can be exported for various other purposes (for example to the NCUP national access point or Google Transit in the GTFS format, as well as export to the NeTEx (schedules, fare tables) and SIRI (dynamic data) formats).

The data is stored in SQL databases. The system is connected to the terminal equipment on JPP vehicles for ticket validation and to ticket sales points. The system also offers a pre-defined set of various reports on validations, sales, usage, etc., as well as report generation and on-demand inquiries.

The system is card-centric and is not designed as account-based ticketing. It does not accept EMV cards. However, bank cards can be used in some cases to purchase tickets online, in operators' applications or at sales points.

The operators' systems are technically integrated in the IJPP system based on the IJPP Standard, which sets out the technical requirements and processes for the launch and operation of the operators' sales and validation systems in the IJPP system.

It is a multi-operator and multi-modal system, which allows users to change from one mode of transport to another with a single ticket, regardless of the type of mode or operator, and strives to ensure time-coordinated connections between different vehicles.

Passenger transport is carried out on scheduled lines and using the vehicles of operators providing the service of general economic interest of passenger transport in city and intercity bus transport and rail passenger transport based on a route-zone system. Transportation services are carried out in accordance with the IJPP system uniform rules based on a combined ticket, which is issued by the IJPP manager and is based on an electronic medium as a central ticket carrier (a contactless smart card – the IJPP card).

The all-in-one IJPP product is a combined electronic ticket issued on a single electronic medium – the IJPP contactless smart card. All-in-one IJPP products are defined by their uniform tariff scheme and unified terms of use. A uniform tariff system is in place, based on a route-zone model of Slovenia's territory in terms of transportation and geography. Urban areas use the zone system, while in other parts of the country, the tariff system is based on the route kilometre geographical model.

The system encompasses various products (tickets), which can be either non-transferable (tied to a particular user) or transferable (freely transferrable between users). They can be valid for a specific route or the whole country, and there are also tickets for specific user groups with certain benefits (registered athletes, pensioners, people with disabilities, people over 65 years of age and war veterans), which are subject to specific right granting rules.

3.2. IJPP in numbers

3.2.1. Number of vehicles used.

Table 2: Approximate numbers of vehicles used in public transport.

	Buses		Trains		Platforms*	Boats	Cable car
	No. buses	No. doors	No. trains	No. doors	No. platforms	No. boats	No. cable cars
Current	1,572	3,664	124	812	374	4	5
Added In 24 months**	369	1,151	30	210		2	3

* During the procurement process, PTA can use only one number Train or Platform.
** Known extensions at this moment.

3.2.2. Number of routes and stations

Table 3: Approximate numbers of routes, stations and platforms used in public transport.

	Bus			Train		
	Routes	Station	Station Points	Routes	Stations	Platforms
Current routes	2,143	5,108	9,950	821	296	374
Added in 24 months*	-	-	-	-	-	-

*Plan

3.2.3. Number of Handheld Sales and Inspection devices:

Table 4:

Handheld Sales devices	80
Bus Inspection devices	129

3.2.4. Number of Retail Sales points:

Table 5:

Offline	96
Online	4

3.2.5. Number of Ticket Vending Machines:

Table 6:

Train	156
Bus	25

3.2.6. Yearly Bus passengers:

Table 7:

2019	31 million
2020	21.3 million
2021	21.8 million
2022*	18.3 million

*1st Half

3.2.7. Active users - IJPP:

Table 8:

Active IJPP users	300,000+

3.2.8. Yearly Ticket Sales**

Table 9:

Train	€12 million
Bus	€27 million

**year 2019

3.2.9. Number of sold tickets (sum, inter-city bus + train):

Table 10:

2019	7,615,188
2020	7,588,716

3.2.10. Number of validations (sum, inter-city bus + train)

Table 11:

2019	25,977,298
2020	38,071,893

4. Procurement Lots

MOPE is considering bundling each of the scope items outlined within the Programme Scope into discrete contract lots to satisfy Programme objectives, mitigate risks and provide overall value for money to MOPE and its customers.

The "Main Lots" to deliver the scope items outlined in the Programme Scope currently considered by MOPE are outlined in Figure 1.

Systems Integrator	ABT Back Office System	Payment Acquiring services and Validators	Timetable Management
Provision of system integration, end-to-end certification and migration services.	Software as a service or license supply, install, integrate and provide software-related services to the ABT Back Office system.	Payment processing, license supply, install, integrate and provide Acquiring services, Validators hardware, software & design manufacture, supply, install, integrate, operate, and maintenance services.	Software as a service or license supply, install, integrate and provide software-related services to the TTM system.

Picture 1: Procurement Core Lots

It is assumed that the System Integrator role will be undertaken by an entity which is not also the vendor for any other Main Lot.

5. Administrative formalities specific to this RFI

5.1. How questions will be addressed.

This section describes the administrative components of the Request for Information, for the benefit of PTA and for respondents.

Feedback is requested in relation to the proposal described within this document. Your feedback is important as it will allow views from the market to inform the development team and finalization of the upcoming public tender strategy covering a new Account-based Ticketing system, procurement of new validators with open-loop payment Acquirer, and procurement of a new Timetable Management System for use at PTA.

Responses to all the questions of this RFI are not obligatory and are intended for internal use only.

MOPE's evaluation of a tender in any future procurement processes will not be influenced in any way by whether that issuing tenderer has chosen to answer RFI questions, and is also completely independent of any answers submitted by the supplier answering an RFI.

5.2. Expected response format

A written response to the RFI should be **submitted via e-mail to gp.mope@gov.si (with the inclusion of the case number 370-7/2023-2570 in the email subject field)**. MOPE prefers responses to be written in the attached Excel documents (Equipment, Functional and Services Specification document and Pricing Information document) and for them to match the same structure and numbering format used in these documents, even if the response does not contain answers to all the questions.

Responses can be submitted as part of the attached document and possible additional information can be written in a separate document.

5.3.   Final submission date

For your feedback to be considered, your completed RFI must be received by 12:00 CET on Monday, 13th November 2023.

MOPE will organize an online project presentation. Time of the event and online link to the meeting will be published under additional information on the public procurement portal. Attending the presentation is optional; however, it is required to apply for attendance beforehand.

5.4.   Privacy information

MOPE is bound by the principle of public access to information and is obliged to release public documents unless these documents have secrecy provisions and are classed as confidential. Before the documents are released, MOPE always conducts a confidentiality assessment in accordance with the Publicity and Confidentiality Act.

MOPE requests that any party responding to this Request for Information clearly indicate which, if any, areas of their submission are requested to be treated as confidential, in addition to stating why public disclosure of this information should be restricted.

MOPE will protect all information offered that is appropriately marked as confidential or a trade secret. Information that cannot be classified as a trade secret according to the law will not be protected.

MOPE reserves the right to use all information not marked as the provider's trade secret in creating the tender documentation's final content, model and scope for the subsequent contractor selection.

5.5.   Acceptable language format

All communication concerning this information request must be in Slovene or English.

5.6.   Compensation

No compensation will be paid for costs related to participating in this Request for Information.

5.7.   Questions and enquiries

Questions regarding the Request for Information are communicated using the Enaročanje question and answer function, and must not be directed to either employees or consultants working at MOPE. Questions concerning any procurements will not be answered within the context of this, or any, Request for Information.

6.   RFI content and legal nature

This is the main document for the Request for Information with an additional 2 excel files covering functional specifications and pricing information.

The relevant Request for Information procedure is a non-binding procedure that does not require the contracting authority to carry out a project. The contracting authority also reserves the right to change the content, scope and parts of the project described in this Request for Information. The final form of the public procurement model, the scope and content of the project, and the contractors' obligations will be defined in any subsequent public procurement procedure.

The bidder who submits a provisional bid will have the same rights as other candidates in such a public procurement procedure. Submission of a provisional bid shall not be deemed to indicate that the bidder is also a candidate in the further contractor selection procedure.

ATTACHMENTS:

- Equipment, Functional and Services Specification
- Pricing Information