ROMATSA
Romanian Air Traffic Services Administration

REQUEST FOR INFORMATION (RFI)
System for Airspace Structure and Flight Procedure Design (PSSAPZ)

Edition: 1.0

Date: [01/08/2025]

Issued by:

Operations Department – En-Route Management Unit

ROMATSA HQ, Bucharest

DOCUMENT DESCRIPTION

Title: Request for Information (RFI) – ROMATSA System for Airspace Structure and Flight Procedure Design (PSSAPZ)

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TABLE OF CONTENT

1. Introduction

ROMATSA, the Romanian certified Air Navigation Services Provider, invites qualified suppliers to provide information regarding the design, implementation and support of a modern and integrated system for Airspace Structure and Flight Procedure Design (PSSAPZ System). This system aims to support design, analysis and validation of airspace structures and instrument flight procedures in compliance with applicable EU, ICAO, EASA and EUROCONTROL provisions.

2. Objectives of RFI

This RFI aims to identify suppliers capable of providing advanced solutions that meet ROMATSA's operational, technical and safety requirements for the PSSAPZ System. The responses will inform the future procurement strategy and technical specifications. Participation in this RFI is not mandatory for future procurement processes but is strongly encouraged to ensure early alignment and visibility.

3. System Functional Scope and Requirements

The PSSAPZ System shall provide the following functionalities:

- Design, sectorisation and modification of terminal airspace structures (TMA, CTR) by utilizing performance and safety criteria, assumptions, constraints and enablers so as to ensure the protection [Modified for clarity] of standard arrival routes (STAR), flight procedures (FP) and standard instrument Departure routes, which meet the specified performance based navigation requirements;
- Design, sectorisation and modification of regional airspace structures (FIR, CTA: AWY - route network, Free Route airspace, and holding areas) by utilizing performance and safety criteria, assumptions, constraints and enablers, which meet the specified performance based navigation requirements;
- Design and modification of restricted airspace structures (D,P;R), reserved airspace structures (TRA, TSA, CBA) and segregated airspace structures;
- Design and modification of airspace structures dedicated to military activities: Military Exercise Area, Military Training Area, Air Defence Identification Zone (ADIZ);
- Design and modification of other regulated airspace structures (NPZ, ATZ, FIZ, RMZ, TMZ, GATE” airspace);
- Design and modification of other special airspace structures (FBZ);
- Design and modification of UAS geographical zones – „U-space” Airspace;
- Design and modification of flight procedures (IAPs, holdings, STAR, SID);
- Advanced visualization, analysis, and safety assessment tools for airspace structures and flight procedures;

- Interoperability with other ATM/ANS systems via specific data exchange models and formats
- Support for sectorization, naming, publication, and documentation of airspace structures.

Besides the functionalities specified above, the PSSAPZ System design must support modularity and scalability.

4. Technical Considerations

Suppliers are requested to describe the architecture, HMI design, software reliability, adaptability, interfacing capability (ICD formats), and fallback or safety-net functionalities of their systems.

5. Integration and Interfacing Requirements

The PSSAPZ system must ensure compatibility and integration with ROMATSA's operational systems and data environments. The system shall:

- Allow automatic and manual data exchange with internal and external systems;
- Support integration with the following systems:
    - ROMATSA ATM System (INDRA): C-DPF (Central Data Preparation Facility) – for providing configuration data for new or modified airspace structures;
    - AIS Integrated Computer System: or the transmission of data on new or modified airspace structures;
    - ROMATSA Automated Air Traffic Complexity Management System (ROMairTCM) by:
        - transmission of configuration data for new or modified airspace structures;
        - reception of historical data related to traffic, complexity, and maximum workload of the air traffic controller.
    - Synchronization with local *(referring to AeroDB, eTOD DB)* and centralized *(referring to EAD)* aeronautical features and terrain databases. Simulation Tools;
- Be able to support at least the following import/export formats for traffic and environment data:
    - AIXM 5.1/ AIXM 5.1.1/ AIXM 5.2XML
    - CSV
    - XLS
    - TXT
    - *.so6 - SegOut6 (files defining flight trajectories used by NEST/SAAM tools, developed by NM/EUROCONTROL)

    - *.are - coordinates for Airspace data (Newmaxo ASCII Region file)
    - *.sls - lower and upper FL of volumes and association of volumes for Airspace data
    - *.gar - Gasel Airblock file
    - *.gsl – Gasel Sector file
    - *.spc - Gasel Airspace file
    - *.cfg – Gasel Configuration file
    - *.cos - Configuration (Sector) Opening Scheme file
- Be able to support data format exchanged between PSSAPZ System and ROMATSA ATM System (INDRA), through C-DPF:
    - Data export in the following formats:
        - CSV format (generating a CSV file from the dataset)
        - DAT file format (generating DAT files from the dataset)
        - Excel format (generating an Excel file from the dataset)
        - NOVA 9000 XML file format (generating NOVA 9000 XML files from the dataset)
        - XML format (generating XML files from the dataset)
        - AIXM format (generation of AIXM files from the data set)
    - Import data in the following formats:
        - CSV format (import from a CSV file into the dataset)
        - Excel format (import from an Excel file (.xlsx) in the dataset)
        - AIXM format (import from an AIXM Data database / from an AIXM file (.xml) in the dataset)
        - BADA import (import from BADA files in the dataset)
        - Jeppesen import (import from a Jeppesen file in the dataset)

The system shall also provide:

- Data synchronization mechanisms with centralized databases;
- Tools for data validation, consistency checks, and update propagation;
- Logging, traceability and version control of interchanged data.

The PSSAPZ system must have an open, modular architecture with documented APIs and data exchange protocols to support automated import/export, real-time data synchronization, and seamless integration with the digital ATM System.

6. Non-Functional Requirements

The PSSAPZ system must meet the following non-functional requirements to ensure performance, reliability, security, and long-term maintainability:

- Modern, service-oriented and modular system architecture;

- High adaptability via configuration data (e.g., AoI (Area of Interest) changes, UI (User Interface) layout), without requiring code changes;
- Support for fallback and degraded mode operations to maintain availability and continuity of services;
- Compliance with safety and cybersecurity regulations;
- Full support for system monitoring, logging, alerting and status reporting;
- Remote maintenance capabilities and provision of updates/patches with minimal service interruption;
- Full traceability of changes, version control, and audit trails.

7. Project Implementation Roadmap

Suppliers are encouraged to propose a clear and structured implementation plan aligned with the following indicative phases:

a. Requirements Validation and Final Design;
b. Factory Acceptance Testing (FAT);
c. Delivery and On-Site Installation;
d. System Commissioning and Site Acceptance Testing (SAT);
e. Calibration, Tuning and Operational Monitoring;
f. Personnel Training (Operational and Technical);
g. System Handover and Warranty Period Start;
h. Long-term Maintenance and Technical Support (minimum 10 years).

The full implementation should not exceed 15 months from contract signing to operational readiness.

8. Structured Response – Required Sections

To ensure consistency and comparability between responses, ROMATSA requests all suppliers to structure their responses according to the outline below (page limits are maximum values; concise submissions are welcome):

I. Executive Summary (max. 2 pages)

• Proposed solution & version;
• Architecture (cloud / on-premises / hybrid);
• Key benefits for ROMATSA;
• One reference in ATM/ANS.

II. Company Profile & Relevant Experience (max. 3 pages)

• Company details & certifications;
• Staff count and ATM/ANS experts;
• 3–5 ATM/ANS projects (client, year, scope, outcome).

III. Technical Proposal (max. 10 pages + annexes)

- Requirement-capability matrix;
- Screenshots / workflow examples;
- Interface descriptions (ATM Indra, AIS System, ROMairTCM, etc.);– protocol & format.

IV. Implementation Roadmap & Risk Mitigation (max. 5 pages)

- Gantt chart for the phases specified at point 8 above;
- FTE resources by phase (on-site / remote);
- Top 5 risks & mitigation plans.

V. Financial & Licensing Overview – indicative (max. 3 pages)

- License model (perpetual, subscription, user-based);
- Costs: software, integration, training, 10-year support;
- Assumptions and exclusions.

VI. Innovation, Scalability & Future-Proofing (max. 2 pages)

- Unique capabilities (AI/ML, microservices);
- Standards readiness (AIXM 5.2, etc).

VII. VII. Annexes / Supporting Materials (no page limit)

- Datasheets, brochures ;
- Optional: Compliance Table (F-Fully compliant/P-Partially Compliant/N-Not compliant) referencing each requirement;
- Demo links or video (max. 10 min).

9. Submission Details

Responses should be submitted electronically in English:

- Deadline: by 25th of August 2025;
- File format: PDF or Word;
- Submission address: See Contact Information;
- Maximum length: 100 pages;
- All confidential content must be marked 'CONFIDENTIAL' on each page;
- Include: 'Response to RFI – PSSAPZ System' in subject line.

10. Confidentiality and Usage

Information marked as 'Confidential' will be treated as such. ROMATSA reserves the right to use submitted information to refine technical specifications for future procurement without disclosing proprietary content.

11. Disclaimer

This RFI is issued solely for information gathering purposes and does not constitute a solicitation or obligation to procure. ROMATSA may issue a formal tender based on the analysis of responses received.

12. Contact Information

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