

**TERMS OF REFERENCE FOR
INFORMATION TECHNOLOGY (IT) SPECIALIST TO SUPPORT PROJECT ACTIVITIES
Western Balkans Trade and Transport Facilitation Project
(Part referred to Republic of Serbia)**

Background

The International Bank for Reconstruction and Development (IBRD) has granted to the Republic of Serbia (RoS) EUR 35 million loan for the Western Balkans Trade and Transport Facilitation Project (WBTF Project). WBTF Project is a part of a Multiphase Programmatic Approach (MPA) covering Serbia, Albania, North Macedonia and Montenegro supporting a combination of investments, technical assistance and regulatory and institutional reforms. WBTF project aims to support Western Balkans governments to promote deeper economic integration, within the region and the EU by assisting with the implementation of measures aiming at: facilitating cross-border movement of goods, enhancing transport efficiency and predictability and enhancing market access for trade in services and investments. In addition, Republic of Serbia obtained grant funds in total amount of EUR 20,051,000 from the Safe and Sustainable Transport Program. These funds are included in the Project for financing of additional investments in road (EUR 10,501,000) and railway sector (EUR 9,550,000), and will be administered by the Bank.

Objective of the Project

Objective of the Project is to reduce trade costs and increase transport efficiency in the Western Balkans. The program is structured around the following four components, which are common across the region, albeit the specific scope of activities is adjusted for each beneficiary.

Component 1: Facilitating movement of goods across the Western Balkans. The component focuses on (a) the design and adoption and implementation of the National Single Window (NSW); (b) the improvements of border crossing points and crossing points in selected trade corridors, and the implementation of Electronic Data Interchange (EDI).

Component 2: Enhancing transport efficiency and predictability. This component focuses on (a) the adoption of an Intelligent Transport System (ITS), (b) the improvement of Railway Level Crossings (RLC) and (c) Development of National Transport Strategy,

Component 3: Improve market access in services and foster regional investments - this Component is covered by grant resources from other development partners, which complements the support from the World Bank Group and

Component 4: Support Project implementation units (PIU) and provide additional technical support, including for policy coordination, operating costs, and monitoring and evaluation of the Project.

The Project implementation is anchored in the Ministry of Construction, Transport and Infrastructure (MCTI) and procurement and fiduciary roles are hosted in the Central Fiduciary Unit (CFU) within the Ministry of Finance. The MCTI will be ultimately accountable for execution of the Project activities and the Project implementation would rely on its existing structures, with the additional support of the Project Implementation Unit (PIU) that is established under the Project. Decisions will be made by the MCTI in coordination with the PIU. The PIU will have direct responsibility for Project management, coordination, and implementation/enforcement. The PIU will report to the MCTI management and will be responsible for day-to-day Project

implementation, for preparing TORs, reviewing documents, overall Project coordination, monitoring activities, safeguard and reporting.

The purpose of these Terms of Reference (ToRs) is to define the scope of work and tasks of the Individual Consultant to be selected as part of the Project Implementation Unit (PIU) of the WBTF Project.

Scope of Work

The main objective of the Information Technology (IT) Specialist to Support Project Activities is to plan, monitor, control and provide technical support on all Project activities related to intelligent transport systems (ITS) and electronic data interchange (EDI) system, in close cooperation with the PIU, contractors, consultants, Ministry of Construction, Transport and Infrastructure, as the Client, Roads of Serbia, Corridors of Serbia and Serbian Railway Infrastructure, as Final Beneficiaries, and other agencies, if and when needed.

IT Specialist to Support Project Activities will be responsible for the following duties:

- Monitoring and management of all IT activities related to execution of the contracts for development and installation of IT solutions with focus on contract for development and installation of EDI system solution (described in the attachment 1 to this ToR), as well as deployment of ITS (described in the attachment 2 to this ToR);
- Coordination, commenting, guiding and overseeing design(s) and works for contracts for EDI system deployment;
- Review and oversight during implementation of Cybersecurity Management Strategies and Implementation Plans of the suppliers;
- Review and evaluate contractors'/consultants' technical documentation, and schedule(s);
- Provide support to the PIU in implementation of all IT related activities, to achieve the planned timelines/critical paths;
- Visiting work(s) site to monitor progress and providing on-site technical support for IT, if needed;
- Coordination of Final Beneficiaries' activities relevant to the execution of contractual obligations and the smooth operation of suppliers;
- Prepare reports and presentations on project progress, and recommendations for decision-makers;
- Any other project related activities per instruction of the Head of PIU;

Length of assignment

The Consultant shall provide part-time services for the life of the project until November 15, 2027. The expected time effort for the assignment is up to 10 working days (80 working hours) per month.

Reporting obligations

The Consultant shall work under the direct supervision of Head of PIU. The consultant will work closely with the key relevant stakeholders and in close consultation with the designated World Bank Task Team staff and MCTI representatives. If and when necessary, the Project Coordinator, the Bank Task Team and the Consultant may agree to make adjustments to the task descriptions or the time frame for deliverables.

The Consultant will provide Monthly Progress Reports, within 5 (five) days after the end of the month for which the report is due, to the Head of PIU describing activities conducted during the

reporting period. The Consultant shall prepare ad-hoc reports on any major issues raised during Project implementation, at the Head of the PIU, Client or Bank's request.

Competences and experience required

IT Specialist to Support Project Activities must possess, at the minimum, the following qualifications:

- 4-year university degree in Computer Science, Information Technology, Electrical or other engineering related field;
- 15 years of professional experience in engineering or IT or similar areas;
- At least seven (7) years of professional experience in IT systems administration, IT procurement, or technical support;
- Experience in transport related IT applications or systems (EDI, ITS, or similar operational systems).
- Experience in road and railway sector IT system design or deployment projects will be a strong advantage;
- Knowledge of Serbian railway sector will be a strong advantage;
- Previous working experience with public institutions/public enterprises will be a strong advantage;
- Previous working experience on IFI financed projects will be a strong advantage;
- Excellent command of the English language;
- Knowledge of Serbian.

Facilities to be provided to the Consultant

The Client will be responsible for provision of the following:

- Fully equipped office space, with access to Internet, local telephone line, printing, photocopying and document binding;
- Access to necessary documents; and
- Where the Consultant is required to travel, to site or elsewhere in accordance with the Client's instruction, transportation and accommodation costs will be borne by the Client.

Confidentiality

The Consultant undertakes to maintain confidentiality on all information that is not in the public domain and shall not be involved in another assignment that represents a conflict of interest to the prevailing assignment.

Selection of Consultant

The selection method is Open Competitive Selection in accordance with the procedures specified in the World Bank's Procurement Regulations for IPF Borrowers – Procurement in Investment Project Financing Goods, World, Non-Consulting and Consulting Services, July 2016, revised November 2017 ("the Regulations").

The candidates will be evaluated applying the following evaluation criteria:

- Qualifications and General experience (40 Points)
- Specific Experience relevant to the Assignment (60 Points)

Attachment 1 – EDI project in railways sector

I. Design, Supply and Installation of Electronic Data Interchange System covering 10 Rail Border Crossing Points and Internal Railway Network in Republic of Serbia

The scope of the contract is design, supply, installation and commissioning of computer system with the purpose of modernization and optimization of freight railway transport system in Republic of Serbia.

It shall be a custom-made solution of EDI in compliance with all requirements set in the Technical Requirements developed by the MCTI and Serbian Railways Infrastructure. A developed Conceptual Design of EDI system is fully compliant with the Commission Regulations (EU) on Technical Specification for Interoperability (TSI) requirements for Telematics Applications for Freight (TAF). TAF-TSI is applicable to the whole Trans-European Rail System. The designed EDI system is envisioned as a pivotal tool for streamlining data exchange among stakeholders. This system will serve as the bridge connecting various entities within the rail freight industry, including rail operators, infrastructure manager(s), terminal operators, and other service providers but also Customs Administration, Border police and other border and/or other government authorities. Apart from TAF-TSI functionalities, and non-functional requirements, the system is designed to implement features that are specific to railway operations in Serbia thus maximizing benefits for the Beneficiary – Serbian Railways Infrastructure (Infrastruktura železnice Srbije – IZS) and other entities from rail freight industry while ensuring accessible data handling, processing and distribution in order to support safe, reliable and cost-effective control of freight movements by rail. In this respect, one of the key features of the EDI system will be the implementation of functionalities currently provided so far by the ZIIS (Železnicki integrisani informacioni sistem - Integrated railway informations system) and described in more detail in the developed Conceptual Design. This will be done on a same platform, alongside the EDI system. This will ensure benefits not only to operations at RBCP's but also to all dispatchers and train controllers within the IZS network, as well as other authorized personnel at service location. It is important to note that the functionalities provided by the ZIIS system do not include those that are standard for EDI system, but those which are complementary to them and specific for IZS, to ensure input data relevant to delivering some of the functionalities of the EDI system.

The contract should be completed within implementation period no longer than ninety-nine (99) weeks from the commencement date.

Attachment 2 – ITS projects in road sector

I. Design, Supply and Installation of an Integrated Traffic Management System on A1 Motorway of Republic of Serbia

The integrated traffic management system to be developed and installed will manage and use data from different data sources as (i) new on-site (field) equipment that will be installed within the scope of this contract and (ii) existing on-site (field equipment) that will be integrated within the scope of this contract.

The contract implementation area consists of 21 intersections upon A1 motorway (between Subotica and Preševo) where the ITS intervention works will be conducted. The Traffic Management Control Centre (TMCC) where this equipment will be hosted will be depicted by the Roads of Serbia (Beneficiary) to the Supplier.

II. Design, Supply and Installation of a Landslide / Slope Monitoring Software and Traffic Management / Monitoring System for Grdelica Gorge on A1 Motorway of Republic of Serbia

The system shall include two main sub-systems:

- a. a landslide monitoring system to detect critical parameters regarding geological, geodetic and structural aspects upon slopes and bridges and,
- b. a traffic management system to manage and inform users about incidents and traffic diversion to alternative routes.

Both sub-systems will manage on-site equipment within the implementation area. Critical information to users will be managed by the Traffic Management/ Monitoring System that will also conduct traffic management operation within the implementation area based also on incidents or alarms/ warnings that are generated by the Landslide/ Slope Monitoring Software.

The scope of this contract includes the preparation of a detailed design and system implementation in a functional environment.

The contract implementation area is on Grdelica gorge upon A1 motorway. More specifically, the landslide and structural monitoring system will monitor seven slopes and two bridges located within the scope of the state highway IA category number A1 (E-75).