



**Republic Geodetic Authority**

**REQUEST FOR EXPRESSIONS OF INTEREST  
CONSULTANCY SERVICES**

**Republic of Serbia**  
**Real Estate Management Project (REMP)**  
**IBRD Credit No.84860**

**Assignment Title:** Advanced Cisco Training for System Administrators in RGA  
**Reference No.** SRB-REMP-8486YF-CQS-CS-19-118

The Republic of Serbia / Republic Geodetic Authority (RGA) has received financing from the World Bank toward the cost of the Real Estate Management Project, and intends to engage of Consultant firm to hold planned trainings:

- Advanced Cisco Training for System Administrators in RGA.

The consulting services (“the Services”) include engagement of a Consultant firm (“Consultants”) to hold an Advanced Cisco Training for the purpose of training of two system administrators from RGA, in order to provide better fulfilling of their tasks and secure sensitive information inside the network system of RGA.

Consultant should be hired to organize Cisco training courses as per following specifications:

- I. Implementing Cisco IP Switched Networks course with following topics covered:
  - Components of *Cisco Enterprise Campus Architecture*, with emphasis on detailed overview and analysis of *Layer 2* and *multilayer* switches;
  - *Switching Database Manager (SDM)* templates and how to use them;
  - Implementation of functionalities such as LLDP and PoE;
  - VLAN and *trunking*
  - Configuration of DHCP server in IPv4 and IPv6 environments;
  - Configuration of Layer 2 and Layer 3 port aggregation;
  - Different types of *spanning tree* protocols – STP, RSTP, PVST, MST;
  - Implementation of inter-VLAN routing on *multilayer* switches and routers;
  - Network services – NTP, SNMPv3, IP SLA, *port mirroring*, switch virtualization (VPC and VSS);
  - FHRP protocols in IPv4 and IPv6 environments – HSRP, VRRP and GLBP;
  - Implementation of network *security* functions – *port security*, *storm control*, *DHCP snooping*, *IP source guard*, *dynamic ARP inspection*, VLAN ACL, implementation of *private VLAN*;
  - Implementation of extreme authentication server and IEEE 802.1X protocol.
- II. Implementing Cisco IP Routing course with following topics covered:
  - Routing protocols, network technologies and *remote connectivity* options;
  - RIPng protocol in IPv6 environment;
  - Modes of operation, technologies and metrics used in EIGRP. Configuration of EIGRP in IPv4 and IPv6 environments including optimization of the protocols through configuration.

- Configuration of OSPFv2 in IPv4 and OSPFv3 in IPv6 environment;
- *Multiarea* OSPF protocol, including detailed description and analysis of network types this protocol can be used for and optimization of OSPF base.
- Redistribution of routes and implementation of distribution lists, prefix lists and route maps.
- Implementation of *Cisco Express Forwarding* (CEF) for efficient packet sending;
- Implementation of route control through *policy based routing* (PBR) and implementation of *IP Service Level Agreement* (IP SLA) mechanism;
- Establishing of *enterprise* internet connectivity in IPv6 and IPv4 environments;
- Implementation of BGP in *enterprise* IPv4 and IPv6 environments;
- Securing of Cisco routers in accordance with established practice including raising security levels for routing protocols.

III. Troubleshooting and Maintaining Cisco IP Networks course with following topics covered:

- Solving network problems and implementation of procedures;
- Recommended *troubleshooting* practices;
- Use of basic and specialized troubleshooting tools;
- Detailed analysis of troubleshooting procedures and actions in the following segments:
  - Internet connectivity with ISP
  - OSPF, EIGRP, BGP including route redistribution;
  - HSRP, VRRP and GLBP;
  - Ether Channel;
  - NTP, DNS, IP SLA, AAA, GRE;
  - Connectivity of central and remote locations;
  - SSH and Telnet problems on network devices;
  - DHCP.

The Consultant will:

- Prepare detailed Training plan for providing services with specified schedule of trainings and training program in coordination with RGA;
- Prepare and organize pre-testing in order to estimate each participant's level of knowledge before start of each course;
- Hold the trainings in accordance with the Training plan and schedule agreed with the RGA;
- Obtain prior approval from RGA for any potential change of dates and training program;
- Prepare and organize post-testing upon completion of each course in order to estimate level of knowledge and new skills gained by each participant;
- Provide timely information on training schedules and program to the attendants of courses and the RGA's Coordinator.

The first contracted course shall start in February 2019. Consultant services are expected to last until June 2019. The Consultant will hold the trainings in its own facilities (specially equipped for specific types of training), according to the previous agreement with RGA. Consultant will provide each attendant of the course with a computer enabling individual work. The Consultant's training facilities will be in Belgrade.

The Project Implementation Unit (PIU) of the Republic Geodetic Authority now invites eligible Consultants to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services:

- Experience and description of similar assignments,
- Availability of skilled staff,
- CVs of key personnel that would be contracted for the assignment, with copy of appropriate licenses for holding the trainings or have adequate experience in required area that shall be proved by appropriate documentation.

The shortlisting criteria are:

- The Consultant will be registered in the Republic of Serbia as a company specialized in computer training;
- Minimum three years of work experience in the above listed types of trainings;
- The teachers will have the appropriate training certificates (licenses) for specified type of Cisco training;
- The Consultant shall undertake the obligation of providing the data on the competence for provision of the required services in the form of brochures, description of similar services (references) and qualifications (CVs) of its teachers.

The Consultant shall submit only one proposal, either individually or as a joint venture partner in another proposal. If a Consultant, including a joint venture partner, submits or participates in more than one proposal, all such proposals shall be disqualified. This does not, however, preclude an individual to participate as a team member, in more than one proposal.

The following selection criteria with corresponding points will be used in the evaluation procedure:

– Specific experience relevant to the assignment ....	50 pts
– Qualifications for the assignment .....	30 pts
– Competence for the assignment .....	20 pts

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's "*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*", published by the World Bank in January 2011 ("*Consultant Guidelines*"), setting forth the World Bank's policy on conflict of interest.

A Consultant will be selected in accordance with the CQS procedure set out in the "*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*", published by the World Bank in January 2011, revised in July 2014.

Further information can be obtained at the address below during office hours **09:00 to 15:00** hours.

Expressions of interest must be delivered in a written form to the address below or via e-mail by **February 25<sup>th</sup>, 2019, 15:00h.**

When submitting Expressions of interest please indicate assignment and reference number for which you are applying.

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