European Commission

Executive summary

Annex I to Invitation to submit Candidatures

Call for Tender

HOME-C2-2012-09

**Framework contract for Maintenance services
under working conditions & evolutionary maintenance
for the Schengen information (SIS II) system**

**(Restricted Procedure - Article 91 (1) (b) Financial Regulation,
Article 122 (2) paragraph 2 Implementation Rules)**

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1. Context of the CFT

1.1. Introduction

The Schengen information system (SIS) is a European Union large scale IT system created as a compensatory measure following the abolition of controls at internal borders within the Schengen area. The main aim of SIS is to allow competent authorities in Member States[1] to exchange information that is used for performing controls on persons and objects at the external borders or on their territory and prior to the issuance of residence permits or visas.

The SIS was established pursuant to the provisions of Title IV of Schengen Convention of 19 June 1990, implementing the Schengen Agreement that entered into force in 1995 as an intergovernmental agreement. The provisions of this Convention were subsequently integrated into the EU framework by virtue of the Amsterdam Treaty.

The "second generation" Schengen Information System (SIS II)[2] will replace the current generation of SIS (called SIS 1+). It will provide for additional functionalities, such as new categories of records and the use and/or storage of images and other data formats such as Biometrics.

1.2. Stakeholders

Throughout the overall set of documents ruling the Call for Tender (CFT), the terms Commission (COM), Agency, Contracting Authority, Contractor, Users and Member States have the following meaning:

- Commission or COM shall be understood as the European Commission.

- The 'Agency' indicates the European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice established by Regulation EU N° 1077/2011 of the European Parliament and of the Council of 25 October 2011. The headquarters of this Agency are in Tallinn, Estonia, and the technical site hosting the central SIS II is based in Strasbourg, France. There is also a back up CS-SIS (BCU) located in Sankt Johann im Pongau, Salzburg, Austria. Once SIS II enters into operations, the Agency will perform the Operational Management and the management of the SIS II environments.

- Contracting Authority: The contract will foresee that there are two contracting authorities (the Commission and the Agency). As from the date of the financial autonomy of the Agency, the latter shall be considered as the sole contracting authority.

- The Contractor is the Tenderer to which the Contract will be awarded.

- The users of the SIS II are:

  - the 24 Member States of the European Union applying partly or fully the Schengen acquis and currently connected to SIS 1, and which will migrate to SIS II at its entry into operation: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden;

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[1] Members States in the scope of this Call for Tender are not only the Member States of the EU, and there are also other Users (see chapter 1.2)
[2] Reg. (EC) No 1987/2006, 20.12.2006 [OJ L 381 of 28.12.2006]

- the 3 Member States of the European Union not currently connected to SIS 1 but which are due to connect to SIS II at a later stage: Cyprus, Ireland, and the United Kingdom;

- the 4 countries, not members of the European Union, but nevertheless connected to SIS 1, and which will migrate to SIS II at its entry into operation: Iceland, Norway, Switzerland and Liechtenstein. These countries are also referred to as "Member States" in this document;

- Croatia is due to accede to the EU on 1 July 2013, subject to the ratification of the EU Accession Treaty for Croatia by current Member States and Croatia. Croatia will join SIS II at a later stage;

- During the period of the contract there might also be other new Member States that will join the SIS II;

- the European Police Office (Europol);

- the national members of Eurojust and their assistants.

1.3. System overview

The SIS II, as a whole, will consist of:

a) a central SIS II system, also named CS-SIS[3], containing the SIS II database and a uniform national interface (NI-SIS[4]). The CS-SIS system at the central site is referred to as (CU) while the back-up system, located elsewhere, is referred to as (BCU),

b) a national system (N.SIS II) in each of the Member States consisting of the national data systems which communicate with the central SIS II and

c) a communication infrastructure between central SIS II and NI-SIS that provides an encrypted virtual network dedicated to SIS II data and the exchange of data between SIRENE Bureaux[5].

The database in the central SIS II will contain alerts on persons and objects entered by the Member States and accessible to all relevant users either on national level or via central query functions. The central SIS II (CU) will be located in Strasbourg and a back-up (BCU) capable of ensuring all functionalities of the principal system in the event of failure of this system shall be located in Sankt Johann im Pongau, Salzburg, (Austria). The CU and BCU have a point to point connection via s-TESTA (Trans European Services for Telematics between Administrations). This will continue to be the case once the system is operational.

The interaction at application level between the central SIS II and each N.SIS II on the Member States side is made via a uniform interface that is defined in the Interface Control Document (ICD).

At network level, the communication with Users takes place on the s-TESTA communication infrastructure, between the central network access point and the national access point, also called the National Interface (NI). The NI is in some Member States made redundant by using a Local National Interface (LNI) and a Back-up National Interface (BLNI). Although each NI is situated on the User's

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[3] The CS-SIS is a concept in the legal basis referring to the central SIS II system
[4] The NI-SIS is a concept in the SIS II legal basis that can be defined as consisting of the access point to the network and the uniform definition of the interaction between the N.SIS II and the CS-SIS, described in the Interface Control Document (ICD).
[5] A SIRENE bureau exists in every Member State. It is responsible for the quality of the information entered and to facilitate the necessary information exchange with other Member states related to the alerts.

premises, the operational responsibility is shared between the Agency and the Commission.

The central SIS II is a high-availability, clustered system, that is designed to give an overall availability of 99,99 %[6] over a rolling period of 28 days. It will handle between 45-70 million alerts and directly or indirectly serve several hundred thousand users all over Europe.

In case of failure of the CU the BCU will be able to take over all the necessary services required for continuity of operations. This implies that the data contained in CU and BCU must be kept synchronous at all times. The switch between the CU and the BCU will be transparent to the Users regarding the network addressing.

1.4.   Responsibilities

The European Commission is currently responsible for managing a number of large-scale IT systems in the area of freedom, security and justice. However, this is only a short-term solution. The Agency being created to provide a longer-term solution for the management of these systems is due to start operations at the end of 2012.

The Agency will provide a viable, long-term solution for the operational management of large-scale IT systems in the area of Home Affairs and will be responsible for the management and the operation of the SIS II System. The MWO Contract will be under the responsibility of the Agency[7] and it will be responsible for the daily activity and interface with the Contractor. The Agency will also be responsible for the processes and operational procedures of the SIS II.

The Operational management and the related maintenance of the system must function 24 hours a day, seven days a week, in accordance with the SIS II Regulation and Decision. In particular the maintenance work and technical development necessary need to ensure that the system functions at a satisfactory level of operational quality, respecting the service level agreement (SLA) and the quality indicators concerning time required for CUD operations (create, update, delete) and interrogation of the central database by the relevant users.

Participating Member States, as the main Users of the SIS II, are closely associated with the project. The Member States and other Users are responsible for the components on their side (e.g. the N.SIS II).

Tasks related to the communication infrastructure (s-TESTA), including operational management, monitoring and security management, are divided between the Agency and the Commission.

1.5.   Summary of requirements

The central SIS II System will be operated by the Agency, which needs technical support to have the system kept in working order. This will be performed via the Maintenance in Working Order (MWO), object of this Call for Tender (CFT). A solution will be required for the following services:

- Having a MWO team in place;

- The corrective maintenance of the System;

- The adaptive maintenance of the System;

- The evolutionary maintenance of the System;

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[6] The figure given is the overall availability of the critical services. The details of the SLA will be given in the TTS
[7] See 1.2, contracting authority

- The training associated with the above services;

- The technical assistance services, including to the Users;

- The support for the Users testing

- The knowledge transfer (reversibility) at the end of the MWO Contract.

All these requirements are presented in more detail in chapter 2 of the present document.

2. Call for tender presentation

2.1.   Scope of the Call for Tender (CFT)

The CFT covers the corrective, adaptive and evolutionary maintenance of the central SIS II System as well as associated services, and technical support to Users. The technical support to Users consists of, for instance, offering services to Users to connect their N.SIS II to the central SIS II, to User participation in testing a new release of the central SIS II or to benefit from the Pre-Production environment for their own tests.

The N.SIS II and network services and infrastructure beyond the network access points located in Strasbourg and Sankt Johann im Pongau, Salzburg, are out of the scope of the present CFT. There will however be monitoring available for the MWO Contractor to detect network incidents and to a certain extent to monitor problems with the N.SIS II on Users side.

2.2.   Objectives of the call for tender

The main aims of the present call for tender are:

- to maintain in an working order, through corrective and adaptive maintenance, the central SIS II system;

- the evolutionary maintenance applicable to the central SIS II System, including the already identified evolutions to be developed by the Contractor;

- the training of the operators and administrators of the Agency in the use of a new configuration (hardware and or software);

- the assistance to the operators and administrators of the Agency for the operation of the system and to the Members States;

- the transfer of know-how to the Agency or to a third party at the end of the contract (Reversibility);

- the update of the documentation relating to the modifications, as well as the existing documentation concerned by the services of the Contractor, affecting the systems, objects of the present call for tender.

2.3.   Maintenance in Working Order (MWO)

All the technical modifications (correction, adaptation, evolution) and associated services allowing the central SIS II system to provide the expected service as defined in their specifications is called the MWO.

The MWO will be provided by the Contractor on all environments defined in section 2.4 located on the premises of the Operations centre of the Agency (Strasbourg)

and of the back up site of the Agency (Sankt Johann im Pongau, Salzburg). Remote access for maintenance of the CU will not be accepted under this contract. The only exception is remote access from the Contractors premises to the Test environment (see fig 1) located in the Operations centre. The Test environment has to be set up in full isolation to the CU and its local area network. It cannot be connected to the WAN used for SIS II.

The major aim of the MWO is to correct, adapt and improve (evolutions) the software of the central SIS II system.

2.3.1. Corrective and adaptive maintenance

The MWO covers mainly the activities of **corrective** and **adaptive** maintenance defined hereafter:

- the corrective maintenance consists of reacting to the anomalies noticed during the operation of the system, by implementing their correction or temporary bypass measures (to be followed by a final correction). The technical follow-up of an anomaly is ensured by an anomaly report;

- the adaptive maintenance consists of updating the configuration of the hardware equipment and the software products of the system in order to keep them in line with the technical support guaranteed by their suppliers.

More precisely, the adaptive maintenance aims to:

- adapt the system, in order to maintain it in a 'state of guaranteed availability';

- maintain the quality of the services delivered by this system, by anticipating the end of the support of the hardware, firm-wares, operating System, software products (COTS, including Open Source software) and applications, as well as the problems arising from the obsolescence of certain components of the system.

'State of guaranteed availability' indicates:

- that the SIS II system in production, and other environments, must be constantly maintained in good working order, according to the specifications;

- that this system must work according to the high availability criteria defined in the SLA signed between the Agency and the Member States and quality Indicators;

- that for the duration of the contract, all the hardware and software which are under the responsibility of the Contractor, must be subject to a maintenance in conformity with the conditions of the Tender Technical Specifications (TTS)

"To maintain the quality of services delivered by the system" means:

- that the Contractor must be able to demonstrate at any time that his services and deliverables enable the system to provide a quality of service at least equal to the requirements made in the TTS;

- that the Contractor alone is the only party responsible for any dysfunction or degradation in the quality of service arising from a modification made by him to the system, and in any such case will be responsible for any complementary maintenance (including the software or equipment updates not planned otherwise) needed to remedy any dysfunction or degradation.

2.3.2. Evolutionary maintenance

The 'Evolutionary maintenance' aims to ensure the evolution of the SIS II central system, in order to respond to:

- new functional and operational requests (Modification Request);

- changes in the functional specifications of the system.

This concept covers evolutions of the system that will be needed, in order to fulfil either future regulations or User needs and to keep the system performing and up to the latest standards.

An evolution is performed according to a Modification Request issued by the Agency

- defines the objective of the requested modifications (expected service);

- specifies the execution conditions.

After an analysis phase for each Modification Request, the Contractor may be requested to provide a technical offer, including a detailed plan (schedule) for the realisation thereof and a financial offer.

2.4. *Environments*

Fig 1: System environments at CU and BCU
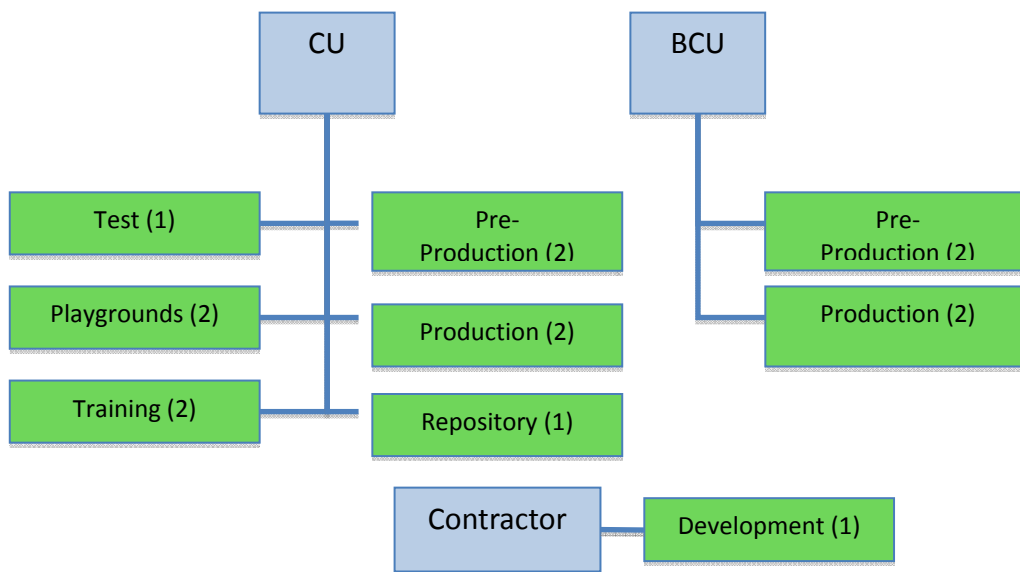
(1) Managed and operated by Contractor
(2) Managed and operated by the Agency

This CFT applies to all environments of the central SIS II. The different environments should be the following:

- Development environment, set-up by the Contractor and located at the Contractors premises, is used only by the Contractor for development and factory tests;

- Test Environment, set-up by the Contractor and located at the CU site, is used for the validation tests, after the factory tests and prior to pre-production tests;

- Training Environment located at the CU site, is used by the Contractor for the training of the Agency and/or Users personnel;
- Pre-Production environments, located at CU and BCU sites, are used for the tests of new release and corrections prior to transfer on the Production environment. New MS systems and changes could also be tested using these pre-production environments.
- Playground Environments, located at the CU site, is used by the Contractor for the tests of the user systems and for the users to validate changes or solving issues on their side;
- Production environments, located at CU and BCU sites, are used for production only;
- Reference (Repository) environment, located at the CU site, is used for archiving purposes only.

The environments include the workstations connected to the LAN's.

The Agency's Operations Centre performs administration and operation of the Repository, Playground, Training, Pre-Production and Production environments.

For the Tests and Development environments, the Contractor performs the administration and operation.

The Contractor performs the maintenance of all the environments. Any change in the allocation of the available resources to the various environments is subject to approval of the Agency in consultation with relevant entities where Users participate.

2.5. *Work packages*

The CFT describes the Contractors work in Work Packages; the Contractor must bid for all the Work Packages. This Executive summary contains a brief description of the Work Packages. A more detailed description will be available in the TTS.

The Work packages are the following:

Work Package 1 (WP.1), Initiation:

Constitution/setting up of the teams and the work environment of the Contractor and acquisition of the knowledge (familiarisation) relating to the objectives of this CFT

- o WP1.1: Setting up

- o WP1.2: Acquisition of knowledge

Work Package 2 (WP.2), Corrective and adaptive maintenance:

Corrective and adaptive maintenance of the central SIS II system,

- o WP2.1: Corrective maintenance

- o WP2.2: Adaptive maintenance (Study)

- o WP2.3: Adaptive maintenance (Realisation)

Work Package 3 (WP.3), Evolutionary maintenance:

Evolutionary maintenance of the central SIS II system

- o WP3.1: Evolutionary maintenance (Study)

- o WP3.2: Evolutionary maintenance (Realisation)

Work Package 4 (WP.4), Training:

Training relating to the functioning, a modification or an evolution of the central SIS II system, training activities must guarantee the transfer of all necessary knowledge from the Contractor to the Agency and/or Users personnel.

Work Package 5 (WP.5), Technical Assistance:

The technical assistance is to be provided to the personnel of the Agency involved in the management and operation of the central SIS II system, and if needed the Users personnel. This assistance may also be requested for tasks such as preparation of technical reports and implementation of procedures in technical domains.

Work Package 6 (WP.6), Testing Assistance:

User testing assistance consists in offering services to current and future Users to connect their N.SIS II to the Central Domain, test a new release of the central SIS II or benefit from a central environment for their own tests.

Work Package 7 (WP.7), Reversibility:

The reversibility consists in a transfer of the systems components and know-how to the Agency and to a third party designated by the Agency, before the end of the Contract.

All the Work Packages that will be defined in the Tender Technical Specifications (TTS) must include at least the following transversal services:

- o Project management;

- o Quality Management;

- o Risk management plan;

- o Change management;

- o Auditability / traceability Management;

- o Business Continuity Process (BCP)/Security Management;

- o Hardware and Software supplier contract management;

- o "Continuous Improvement" services, including the technology survey;

- o Configuration and Release Management;

- o Participation in relevant meetings with the Agency and the Users, when requested by the Agency.

3. Other Generalities

3.1.   *Service Desk*

The Contractor has to provide a single point of contact for all incident and problem management and for the support of the Agency. Incident and problem management processes will be put in place by the Contractor. The Service desk needs to be set up in a way that it can fulfil the requirement on 24/7 availability.

3.2.   *Communication*

The spoken and written language of all communication will be UK English. All deliverables, reports, drafts etc. must be delivered in English unless otherwise agreed. All meetings will be conducted in English.

3.3.   *Monthly Status Reports*

At the beginning of each month, a monthly status report must be sent to the Agency with details of the work carried out in the previous month. The report must also contain a description of the work to be performed in the next month, clearly mentioning the milestones.

3.4.   *Follow-up of maintenance work*

Follow-up meetings may be organised, in order to report, follow-up or facilitate the implementation of maintenance work (correction, adaptation or evolution, quality).

3.5.   *Quality indicators*

The Contractor must respect the quality indicators defined by the Agency.

3.6.   *Technical and user Documentation*

The Contractor is responsible for the update of technical and user documentation of the SIS II system and all its environments within the scope of the call for tender. He must keep these documents updated respecting their organisation and the rules and conventions in practice which guarantee the homogeneity of the totality of the documentation.