TERMS OF REFERENCE

To provide advisory services to the Debt Management Section (DMS) on the review and finalization of the functional requirements specifications (FRS) for the re-engineering of the Commonwealth Secretariat Debt Recording Management System (CS-DRMS).

1. Background
The Debt Management Section (DMS), of the Special Advisory Services Division (SASD), Commonwealth Secretariat implements the Commonwealth Secretariat’s capacity building programme in debt management in its member countries. As part of the debt programme, DMS has developed and continuously maintains a suite of debt management software comprising the Commonwealth Secretariat Debt Recording and Management System (CS-DRMS), the Commonwealth Secretariat Securities Auction System (CS-SAS) and Horizon (Further information on the software is available on the website www.csdrms.org). The debt management software is used in 61 countries around the world, including 15 non-member countries.

The current generation of CS-DRMS was developed 10 years ago based on Delphi language. Since then, significant changes have occurred in the IT arena as well as the debt management landscape globally. There is increasing need as well as user expectations for the software to remain relevant as an operational tool for debt managers and also to embrace and take advantage of latest technologies.

This was amply stressed during an independent evaluation of the debt management programme of the Secretariat conducted in 2010. The evaluation concluded that CS-DRMS has become an invaluable tool to many countries, greatly increasing the efficiency of their work and quality of their debt data. It however also highlighted that there was a need for the Secretariat to redesign/redevelop the CS-DRMS to take advantage offered by latest technologies as well as address a number of new functions in line with client expectations.

In response to above user expectations, the Commonwealth Secretariat has launched a project to re-engineer the CS-DRMS based on state-of-the-art Microsoft.Net technologies. The re-engineered product is expected to reflect the latest industry trends and standards, and the proposed architectural and functional enhancements are aimed at rendering the software more business friendly, transforming the application into a decision making tool that will better assist public sector debt managers.

Given that the re-engineering of the CS-DRMS on a new development platform is a major development exercise, the Commonwealth Secretariat has decided to outsource the development. The subsequent maintenance of the system following warranty is expected to be handled in-house. The Secretariat will therefore be inviting proposals through a tender
exercise from well-established software development firms for the design, development, testing and documentation of the new software.

As part of a first phase of this software redevelopment project, the Secretariat had enlisted consultancy services to analyse software requirements and prepare the necessary solution architecture and roadmap to re-engineer the CS-DRMS using latest technologies.

The Secretariat is now embarking on the second phase of the project for the actual re-design and re-development of the CS-DRMS on the new development platform. Accordingly, a set of draft functional requirements specifications (FRS) has been developed which will form the basis of the tender exercise for the software redevelopment project.

In this context, the Secretariat is seeking to enlist the services of debt management expert(s) to review the draft FRS with a view of identifying and filling any functional gaps and producing a detailed and comprehensive FRS in preparation for the tender for the software redevelopment project.

2. The Present Software

2.1 CS-DRMS

CS-DRMS (www.csdrms.org), launched in 1985, is an integrated tool for recording, monitoring and reporting public debt. The scope of CS-DRMS has significantly evolved over the years, undergoing a series of enhancements to take into account (i) changes in debt management practices, (ii) global debt initiatives, (iii) changes in creditor practices and (iv) changes in information technology. (see brochure at http://www.csdrms.org/uploads/public/documents/publications/CS-DRMS%20V2%20final.pdf)

The software provides a central repository for several categories of public and publicly guaranteed external and domestic debt covering a wide range of debt instruments. The system, available in English and French, has been developed using Delphi 7 programming language. It is based on client/server architecture, runs on Windows Server and clients and supports Oracle and SQL Server databases. It comprises different modules for loans and securities management.

The Loans Management Module allows recording of loan data, terms and conditions from multilateral, bilateral and commercial creditors. It can also handle complex instruments such as multicurrency and multi-tranche loans.

The Securities Management Module provides for capturing details of a wide range of securities covering treasury bills, bonds, promissory notes and commercial papers.

The system integrates a powerful feature for forecasting disbursement and debt service flows. Debt managers can record actual disbursements and payments based on which the system can compute arrears, future payment obligations and penalties.

CS-DRMS comes with a Debt Re-organisation utility which allows for the implementation of various types of debt restructuring covering loans and securities such as refinancing, rescheduling and write-off.
The software enables debt managers to record and execute a number of *liability management options* such as currency conversion, interest rate conversion, etc. to hedge their debt against currency and interest rate risks.

CS-DRMS also comes with an **Analytical Module** designed to assist debt managers to conduct sensitivity analysis and portfolio reviews.

The software comes with an extensive set of **Standard Reports** which can run across loans and securities and that can be generated either on aggregate or instrument-wise basis. Specialised tools are also available for generating debt data according to the reporting requirements of the IMF/World Bank’s Medium Term Debt Strategy (MTDS), Quarterly External Debt Statistics (QEDS), World Bank’s Debtor Reporting System (DRS) and World Bank Quarterly Public Sector Debt Database (QPSD). CS-DRMS is also shipped with a **Report Writing Tool** which allows clients to develop their own country specific reports.

### 2.2 CS-SAS


CS-SAS supports different instrument types such as Treasury Bills and Fixed, Floating or Zero coupon bonds; competitive and non-competitive bidding; and yield-based or price-based auctions.

CS-SAS is compatible with both manual bidding as well as online bidding processes. Investors can as such submit paper bids but also have the possibility to place their offers via the Internet and track the status of their bids.

The software automates the selection of bidders based on user defined parameters and comes with a set of useful analytical reports for debt managers.

Like CS-DRMS, CS-SAS has also been developed using **Delphi 7** and supports both **Microsoft SQL and Oracle** databases.

### 2.3 HORIZON

Horizon is a specialised decision support system designed to enable debt managers to prudently manage their debt through a cost and risk focus. (see brochure at [http://www.csdrms.org/uploads/public/documents/publications/ Horizon_Brochure_REVISED 17102012.pdf](http://www.csdrms.org/uploads/public/documents/publications/Horizon_Brochure_REVISED 17102012.pdf))

The software provides an integrated framework for the development and implementation of debt management strategy. It enables debt managers to assess the costs and risks of alternative borrowing strategies and identify the one most likely to lead to a desired portfolio composition. The tool further enables debt managers to implement and monitor their selected
strategy through the integration of cash and debt management and the development of an annual borrowing plan including a securities issuance calendar and liability management operations (for example buybacks, switches, embedded options, restructuring and swaps). It has been designed to interface with any debt recording software for importing debt portfolio data.

Horizon is a web-based system supporting both Microsoft SQL and Oracle databases. Developed using Microsoft .Net technologies, it is the latest software product launched by the Secretariat in 2013.

3 Scope of work
The Commonwealth Secretariat is planning to move CS-DRMS/CS-SAS from Delphi to the Microsoft .Net development platform in the light of technological changes. The objective is to re-engineer and web-enable the CS-DRMS/CS-SAS which will include revisiting the current architecture and functionalities as well as the addition of new functionalities on the new Microsoft .Net platform.

Given that the re-engineering of the CS-DRMS/CS-SAS on a new development platform is a major development exercise, the Commonwealth Secretariat has decided to outsource the development.

The new software will be a web-based solution developed using Microsoft .Net technologies (e.g. c#, Silverlight, etc.) and will run on Windows platform and support both SQL Server and Oracle databases.

The Secretariat will be inviting proposals, through a tender exercise, from well-established software development firms for the design, development, testing and documentation of the new software. In preparation for the tender exercise, the Secretariat has prepared a set of draft functional requirements specifications (FRS) which will form the basis for the software redevelopment project.

The Secretariat is seeking to enlist the services of debt management expert to review the draft FRS with a view of identifying and filling any functional gaps and producing a detailed and comprehensive FRS in preparation for the tender for the software redevelopment project.

The consultancy will specifically cover the following:

(a) Review the overall software functional architecture of the new CS-DRMS\(^1\); this includes the different modules, workflow process, authorisation, transactional cycle and interface, accounting principles, valuation, alerts and notifications, housekeeping, etc.
(b) Review the portfolio (liabilities, assets, SWAP) and instrument coverage by the new software.
(c) The new CS-DRMS is envisaged to comprise a wide set of modules/functionalities including pre-agreement management, loan management, grants management, securities auctioning management, securities management, liability management operations, portfolio analysis, lending management, contingent liabilities management,

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\(^1\) The new CS-DRMS will incorporate the CS-SAS as one module.
private sector external debt management and sub-national debt management. The consultant(s) will be expected to review each module in a detailed manner covering the objective of the module, its instrument coverage, detailed features, information flow, level of recording, sources of data, intended audience, linkage between categories of instruments, operational risk mitigations, etc.

(d) Review the payment processing and management by the system including straight through processing (STP). This would include interface with SWIFT for externalisation of payments.

(e) Review the external interface with other financial management systems; for example for uploading of market variables, upload of primary and secondary market data, sharing information on payments and disbursements, etc.

(f) The system will come with an extensive list of operational, statistical and analytical reports targeting different categories of users. A dashboard will also be available for a snapshot of the debt position, amongst others. The system will moreover include a tool for development of country specific reports. Consultant(s) will make suggestions on the reports and dashboard for comprehensiveness; including contents, dimensions, parameters, target audience, real-time reporting, output formats, graphical features, etc.

(g) The system will be complying with relevant standards including IPSAS, SWIFT, SDMX, IATI, accounting and auditing standards. It will also be following the guidelines as set in the External Debt Statistics: Guide for Compilers and Users, Public Sector Debt Statistics: Guide for Compilers and Users and the Handbook on Securities Statistics. Consultant(s) will review the comprehensiveness and adequacy of the compliance with necessary standards.

(h) Review the FRS for the correct use of terminology and consistency of use throughout the document.

As part of the review, consultant(s) will hold discussions with the DMS and its representatives, comprehensively analyse the draft FRS available, update the FRS where required with necessary justifications and details. The final deliverable of the consultancy will be a comprehensive, detailed and fully updated FRS.

All deliverables will be finalised after discussion with and on acceptance by the Secretariat.

All draft, intermediary and final deliverables produced as part of this assignment will be the property of the Commonwealth Secretariat which will hold the copyright to their use.

4 **Required Technical Expertise**

For undertaking the above mentioned work, consultant(s) should have the following mix of expertise:

- A good knowledge of public debt and public financial management process;
- At least 10 years demonstrable working experience of debt management preferably in debt office environment with clear institutional separation between front, middle and back office operations;
- Conversant with sound debt practices and processes including knowledge of such practices in various countries;
- Good knowledge of various debt securities and loans;
• Good knowledge of accounting practices with regards to financial instruments, including cash and accrual based accounting;
• Thorough understanding of the reporting requirements of different categories of users of debt information;
• Familiarity with debt management information systems and their interfaces to external systems;
• Strong consulting experience with regard to elaboration of functional requirements for debt related management information systems.

In cases where a bidder comprises a team of experts, the bid should clearly specify the lead consultant and the various roles and responsibilities of each team member along with the effort (person days) of each member for the successful completion of the consultancy.

5 Location and Level of Effort

The consultant(s) will need to travel, if applicable to the Commonwealth Secretariat office in London, UK for:
• Discussions with the team; and
• Presentation and discussion of recommendations;

Any other relevant work can be done at the consultant’s normal place of residence.

It is expected that the consultant(s) will work closely with the DMS for elaborating and finalising the requirements.

The level of effort anticipated for the assignment is around 40 person days/8 person weeks which will cover all the activities and tasks required for the successful completion and delivery of the consultancy. The consultancy is expected to be undertaken during the period June to July 2014.

6. Remuneration

The Secretariat will offer the following:
• Total Consultancy fees of up to a maximum of £20,000.
• Economy class return air fare to London (if applicable).
• Daily subsistence allowance for London at prevailing UN per diem rates (if applicable).

The following payment terms will apply:
(a) 20% of the fixed price consultancy fees after signature of contract.
(b) Remainder of the fees upon completion of services to the full satisfaction of the Secretariat.

7. Assessment Criteria

Bids will be assessed based on the following criteria:
(a) Understanding of the terms of reference.
(b) Methodology and work plan for undertaking the assignment.
(c) Qualifications and experience of bidder/consultant.
(d) Consultancy fees.
8. Submission of Proposals

Proposals must include the following:

- The profile of the consultant and details of similar projects undertaken;
- A write up explaining:
  - i. the bidder’s understanding of the assignment;
  - ii. the methodology for undertaking the assignment and achieving the objectives;
  - iii. the adequacy of the consultant’s knowledge and experience with reference to the assignment and required expertise;
  - iv. Detailed CV of consultant(s) showing:
    - (a) Skills related to the assignment;
    - (b) Experience related to the assignment;
- A detailed work plan with milestones showing involvement of proposed consultants for different activities along with the effort for each activity by each consultant (person days); the work plan will also show which activities will be carried out in London for which there will be need for consultants to travel to the Secretariat;
- Total effort and consultancy fees²

(March 2014)

² The consultancy fees do not include cost of travel to and subsistence allowance in London (if applicable) as these will be arranged for separately by the Commonwealth Secretariat.