



**Government of India**  
**Ministry of Finance (Deptt. of Expenditure)**  
**O/o the Controller General of Accounts**  
**Project Cell (Central Plan Schemes Monitoring System)**  
**Room No. 202, 203 & 204, 2<sup>nd</sup> Floor, Palika Bhawan,**  
**Sector 13, R. K. Puram, New Delhi-110066**  
**Tel: No. 011-24108104/108; Fax: #91-11-24108102/107**  
**email: [cpsms-mof@nic.in](mailto:cpsms-mof@nic.in)/alok.verma@nic.in**

**Invites**

**EXPRESSION OF INTEREST (EOI)**

From eligible Software Development firms/agencies for hiring of services of:

- (i) **One System Architect,**
- (ii) **One BizTalk Expert,**
- (iii) **One Functional Consultant (Data Warehouse),**
- (iv) **One Functional Consultant (Bank Integration),**
- (v) **Two Business Intelligence(BI) Developers and**
- (vi) **One Security Expert/Manager**

initially for a period of one year for the **web enabled application/portal being developed by the Controller General of Accounts (CGA), Ministry of Finance (Deptt. of Expenditure), Government of India for the implementation of Central Plan Schemes Monitoring System of the Planning Commission, Government of India.** The details of the system can be seen by clicking “Central Plan Scheme Monitoring System” on the home page of website mentioned below (also on [www.cpsms.nic.in](http://www.cpsms.nic.in)).

Functional Consultant (Bank Integration) is required for analysis, gap-analysis, solution-designing, implementation and integration of banking solutions. He/she will have expertise in various core banking solutions and developing solutions for payment gateways, internet based payments/card based payments etc. using middleware

System Architect will provide oversight and technical support during the course of development of various processes, modules and interfaces for the CPSMS System. He will be responsible for designing the technical architecture and databases for functional requirements and ensuring the technical quality of product.

BizTalk Expert is required for system design and development of banking interface. It is planned to use BizTalk middleware for automatic and secure exchange of data with banks and other IT systems e.g. of State Government Treasuries.

Functional Consultant (Data Warehouse) will be required for design, development and institutionalisation of data warehouse for MIS/DSS.

BI Developer (Business Intelligence) is required to support the functional Consultant to set up the Data Warehouse and to design & develop the Decision Support System and MIS.

Security Expert will be responsible for designing and implementing the Security Policy for the CPSMS.

The details of the skill set, qualification and experience for the above IT Professionals may be seen (under Terms of Reference) in the CGA's website mentioned below by clicking on the button "Requirement of IT Professionals for CPSMS".

The eligibility criteria for short listing would be as mentioned below:

- a) The agency/firm should have been in business of software development for the **last three years** and should have provided services/executed similar work earlier.
- b) The agency/firm should have expertise in all of the domains of Information Technology mentioned above. In case single agency/firm cannot provide services of all the domains mentioned above, sub-contracting is allowed. However, details of the sub-contractor/s must be furnished along with the bid.
- c) The agency/firm must have an annual average turnover of **Rupees One Crore during last three years.**

The EoI should be accompanied with the name and correspondence details, Office address, name of principal directors, organizational structure of the agency/firm, **audited balance sheets for the last three years**, etc. Interested bidders may submit their EoI in the format downloadable from the CGA's website, in an envelope clearly labelled "**EoI for IT Professionals for CPSMS**" to office of the Controller General of Accounts (CGA) at the address mentioned below by 1700 hrs on 21.01.2011.

CGA reserves the right to accept or reject any application and to annul the process at any time, without any liability and assigning any reason thereof. Interested bidders are requested to either mail or fax their queries at the Ministry's email/fax number as below for the attention of Astt. Controller General of Accounts.

Request for Proposal consisting of Technical Bid and Financial Bid will be issued only to those firms/agencies which are shortlisted based on EoI.

**Astt. Controller General of Accounts,  
O/o the Controller General of Accounts,  
Project Cell (CPSMS), Room No. 204, 2<sup>nd</sup> Floor,  
Palika Bhawan, Sector 13, R. K. Puram, New Delhi-110066  
Tel. No. 0091-11-24108104/108; Fax: 0091-11-24108102/107  
Email <cpsms-mof@nic.in>; <[alok.verma@nic.in](mailto:alok.verma@nic.in)>  
CGA's Website ([www.cga.nic.in](http://www.cga.nic.in))**

**(Alok Verma)  
Astt. Controller General of Accounts,**

**Format**  
**for submission of EoI by firm/Agency for providing services of seven IT**  
**Professional for CPSMS**

S.#	Particulars		
1	Name of the Firm/Agency	:	
2	Address for correspondence	:	
3	Telephone No.	:	
4	Email address	:	
5	Name of principal director/partner	:	
6	The number of years for which the agency/firm is in business of software development.	:	
7	The turnover of firm/agency during the last three years (In Rs./Lakh) based on the audited/certified accounts.	:	<u>2007-08    2008-09    2009-10</u>
8	Has the firm/agency executed similar work earlier?	:	Yes No  (If yes, please give detail of the similar work executed in a tabular form in separate sheet)
9	Has the firm/agency ever been blacklisted by any Government Deptt./Agency		

**Signature of the authorised  
representative of the firm/agency**

# **TERMS OF REFERENCE**

## **Part I**

### **Objective, Scope of Work, eligibility criteria & deliverables**

#### **1. Background**

There are over a 1045 Centrally Sponsored and Central Sector Schemes being implemented through the different Ministries of the Government of India. Given the diversity in the implementation hierarchy, the number of implementing units and the geographical reach of these schemes it has been a challenge to have meaningful information on these schemes. Thus the need for a central monitoring, evaluation and accounting system for the Plan Schemes has been widely acknowledged. This not only effects the monitoring of the Plan Schemes but also has implications for financial management in the public sector.

The Economic Survey (2007-08) emphasized the need of output and outcome monitoring and creating knowledge-based expertise for effective financial monitoring of the Plan Schemes. Subsequently the Finance Minister in his Budget Speech (2008-09) announced the setting up of the Central Plan Schemes Monitoring System towards establishment of a comprehensive Decision Support System and Management Information System. The intended outcome is to generate and monitor scheme-wise and State-wise releases for the Central Plan and Centrally Sponsored Schemes.

The 11<sup>th</sup> Plan Document recognized the deficiencies in the existing accounting system for the Plan Schemes and its inability to support informed planning, budgeting and effective monitoring of these schemes. It also underlined the need for a consolidated financial information system for the Plan Schemes.

The Planning Commission, Government of India approved the implementation of Central Plan Scheme Monitoring System (**CPSMS**) in a phased manner with clearly defined activities to be accomplished during each phase.

#### **1.2 Objective of CPSMS**

Central Plan Scheme Monitoring System (CPSMS) aims at establishing a suitable on-line Management Information System and Decision Support System for the Plan Schemes of the Government of India. With 139 Centrally Sponsored Schemes and more than 800 Central Sector Schemes, along with State Plans and Additional Central Assistance, the CPSMS aims to track funds of almost Rs.300,000 Crores. The system is envisaged to track the fund disbursement from Government of India under Plan Schemes and ultimately report utilization under these schemes at different levels of implementation in States/UTs on a real time basis.

The existing financial MIS being used by the Ministries/Department of Government of India generates periodic reports with time lags and it is not backed up by an in-built system of bank reconciliation. CPSMS, on the other hand, aims at providing an on-line financial MIS with an in-built Decision Support System. The accuracy of the MIS generated is also ensured by one-to-one validation by the banking transactions through an interface established between the CPSMS and the Core Banking Solutions (CBS) of the banks, irrespective of the fact which bank the State Project Office/Agency banks with. Thus, the utilization of funds reported by the system would be accurate, timely and customised for individual State's requirement and provide opportunity for the programme managers to undertake mid-term corrections, an attribute which is lacking in the present financial reporting system.

Funds lying unutilized at various levels in the banks (of which there is no centralized tally available as of now) will be completely obviated. Underutilization and shortages of funds at various levels of implementing agencies will also be identified and obviated. This will be a departure from prescriptive fund release system to 'Just in time' fund release system thereby minimising float with the banks and saving of interest to the Central Government exchequer.

On full implementation, the System would generate information that was not available so far in the public domain. The System, for the first time in the area of public financial management, is geared to generate a robust and reliable Financial Management Information System (FMIS) in tandem with the Core Banking Solutions (CBS) of the banks. Unlike other MIS applications where financial MIS depends on the ex-post facto data feeding, the fund utilization data fed into the CPSMS would have one-to-one correlation with the banking transactions being done by the implementing agencies in the course of programme implementation.

It would provide a platform on which the management at each level would be able to monitor fund releases and their utilization Ministry-wise, Scheme-wise, State-wise and Agency-wise on real time basis under various plan schemes. It would also capture beneficiary-wise and component-wise fund utilization by implementing agencies at the State, District, Block and lower levels. Payment to ultimate beneficiary would be through the banking channel.

The reports generated by CPSMS would also immensely add value in terms of greater transparency and accountability in implementation of these schemes.

### **1.3 Progress in development of CPSMS portal and its implementation**

A number of system modules have been developed and tested successfully and the required MIS reports are being generated by the Planning Commission and other users. The position has been consolidated at Central Government level and now all releases of funds are being made through CPSMS portal. The work on development of Bank Interface for automatic

exchange of data between CPSMS server and Core Banking Solution (CBS) of the Banks is progressing and is scheduled to be completed soon. Interface will provide the real time exchange of data relating to tracking the flow of funds reaching into the accounts of Implementing Agencies in States & UTs, details of funds lying in bank accounts and expenditure filing on the system. The state of the art BizTalk middleware is to be used for automatic exchange of data between CPSMS server and Core Banking Solution (CBS) of the Banks. To expedite the work on the system development and implementation and to complete the work n delivery of the final product (CPSMS portal) the Authority has decided to hire seven IT Professionals to strengthen the development teams by providing experts for each of the domains mentioned below.

## **2 Purpose/objective of the assignment.**

2.1 One **Functional Consultant (Bank Integration)** are required for analysis, gap-analysis, solution-designing, implementation and integration of banking solutions. Functional Consultant will have expertise in core retail banking operations and business-account enrolment, customer sales and servicing, branch operations, item processing, deposit management, retail banking back-office operations, exception management, etc. His/her expertise in retail/commercial bank as a business technology service provider will be an added advantage for bank integration work.

2.2 One **System Architect** is required to oversee and coordinate the various technical functions for development of the final product (CPSMS System). System Architect will provide oversight and technical support during the course of development of various processes, modules and interfaces for the System. He/She will work as a Technical Coordinator through the entire development process and ensure the technical quality of the product as also its delivery within the given timeframe. He/She will ensure that the system design follows the overall scalable architecture of the CPSMS and makes the incorporation of the future requirements in the system possible. All requirements for system development that will be received from different stockholders will need to be converted into technical designs.

2.3 The services of one **BizTalk Expert** are required for development of design, process and system for banking interface. CPSMS system envisages the almost real time exchange of data with the banks. It is planned to use BizTalk middleware for automatic exchange of data. Banking Interface will provide the real time exchange of data relating to tracking the flow of funds reaching into the accounts of Implementing Agencies in States & UTs, details of funds lying in bank accounts and expenditure filing on the system.

2.4 As the CPSMS data is growing over time, the Project Cell (CPSMS) needs one **Functional Consultant (Data Warehouse)** for development and maintenance of an end-to-end enterprise data governance program. The consultant will work with management at all levels to mange enterprise data and the processes that leverage it. He/she will establish the data strategy together with the relevant stakeholders and implement and maintain best

practice data management procedures around data standardization, data preparation, data architecture, data quality and data integrity improvement initiatives. Data Warehouse is critical because the MIS and Decision Support System (DSS) will use the data for many years. The Functional Consultant will help in designing the Data Warehouse and in establishing suitable Management Information System and Decision Support System which are considered essential for better monitoring and management of Plan Schemes.

**2.5 Two Developers (BI)** are required to support the functional Consultant to set up the Data Warehouse and to design & develop the Decision Support System and MIS are also required. Scope of the work, qualification and experience is given in the Terms of Reference (TOR).

**2.6 One Security Expert** is required for the design, development and review of system security. CPSMS system is going to integrate with the banks and many other systems of the Ministries of the GoI. The CPSMS system will be crucial for payments at the Central Government level and at the level of Special Purpose Vehicle. Security Expert will design and implement the Security Policy for the CPSMS and will ensure that the system is always State of Art in terms security requirements and comply with the Information Technology Act.

### **3 Detailed scope of work/assignment/eligibility criteria & skill set and deliverables expected**

#### **3.1 Functional Firm/Agency (Banks Integration)**

##### **Deliverables, Qualifications, Experience & skills**

	<b>Deliverables</b>
1	Analysis, gap-analysis, solution-designing, implementation and integration of banking solutions. Expertise in core retail banking operations and business-account enrolment, customer sales and servicing, branch operations, item processing, deposit management, retail banking back-office operations, exception management, etc.
	<b>Minimum Educational Qualification</b>
1	BE/B. Tech/MCA or any Bachelor Degree with Degree/Diploma in Computer Science/Information Technology
	<b>Professional Certification is desirable</b>
	<b>Experience &amp; Skills</b>
1	Minimum 5 years of experience of working in core banking technology sector with on-site experience comprising of requirement analysis, gap-analysis, solution-designing, implementation and integration of banking solutions.
	Sound knowledge of a core banking system (Flexcube, Hogan, Finacle, T24, Corebank, TCS BaNCS, etc.)
2	Experience in one or more of the following areas would be an

	advantage: E-banking, payment cards solutions, fraud detection, etc.
3	Scenario based functional testing.
4	Ability to debug functional issues.
5	Provide quality and consistent support to existing & potential client base.
6	Experience in Application Support.
7	Knowledge of secure financial messaging services, XBRL, etc.
8	Understanding of Microsoft .Net Technologies.
9	His/her expertise in retail/commercial bank as a business technology service provider will be an added advantage for bank integration work.
	<b>Soft Skills</b>
1	Communicates clearly and effectively with business, team members and management.
2	Candidates must have good client facing skills and experience.

### 3.2 System Architect

#### **Deliverables, Qualifications, Experience & skills**

	<b>Deliverables</b>
1	Oversee and coordinate the various technical functions for development of the final product (CPSMS System). Provide oversight and technical support during the course of development of various processes, modules and interfaces for the System. Ensure that the system design follows the overall scalable architecture of the CPSMS and makes the incorporation of the future requirements in the system possible.
2	Work within the architecture group and business to ensure alignment of the technical delivery method with other IT processes.
3	Conduct systems requirement analysis.
4	Lead the design and development of middle-tier links to SQL Server Databases, Web Services Architecture.
5	Lead, perform, and actively participate in formal requirement, design, and Code reviews.
6	Do technical design reviews and validating approaches.
7	Work intensively with developing systems for content management, web publishing, integration, e-commerce, digital signature, server programming and web-based systems.
8	Act as Technical Coordinator through the entire development process In the development-, test- and deployment phases, and vouch for the technical quality of the project.
9	Coding and programming of the project, specifically critical parts of a project.
10	Design, performance, and scalability of .NET applications.
11	Design and analyze hosting infrastructure and application architecture as they relate to overall performance, reliability and maintainability.
12	Interact with management by designing, justifying and implementing architectural direction and decisions.
	<b>Minimum Educational Qualification</b>
1	BE/B. Tech/MCA or any Bachelor Degree with Degree/Diploma in



	Computer Science/Information Technology
	<b>Professional Certification is desirable</b>
	<b>Experience &amp; Skills</b>
1	8 years experience in designing and developing applications using .NET technologies with at least three year experience as an architect.
2	Solid understanding of data management including RDBMS, ETL, data normalization, data warehousing concepts and techniques.
3	Solid understanding of Microsoft system operations.
4	Extensive experience in designing & implementing N-tier solutions.
5	Proficiency in model driven architecture and development techniques and UML.
6	Proficiency in entity relational data modelling techniques.
7	Dot NET architecture certification is desirable.
	<b>Soft Skills</b>
1	Communicates clearly and effectively with business, team members and management.
2	Candidates must have good client facing skills and experience.

### 3.3 BizTalk Resource

#### **Deliverables, Qualifications, Experience & skills**

	<b>Deliverables</b>
1	Development of design, process and system for banking interface for CPSMS
	<b>Minimum Educational Qualification</b>
1	BE/B. Tech/MCA or any Bachelor Degree with Degree/Diploma in Computer Science/Information Technology
	<b>Professional Certification is desirable</b>
	<b>Experience &amp; Skills</b>
1	4+ years experience in developing applications using BizTalk 2006/R2/2009 and Dot NET technologies (C#, SQL Server 2008)
2	In creation of Schema and Maps
3	In creation of Ports and Receive Locations
4	In creation of Pipelines,
5	In creation of Orchestrations
6	Adherence to quality guidelines and time lines
7	Good Knowledge of BizTalk Adapter Framework
8	Knowledge of Messaging Business Activity Monitoring and Rules Engine.
9	Proficiency in model driven architecture and development techniques and UML
10	Proficiency in entity relational data modelling techniques
11	Experience in Banking and Financial Domain Desired
12	Solid understanding Microsoft system operations.
	<b>Soft Skills</b>

1	Communicates clearly and effectively with business, team members and management.
2	Candidates must have good client facing skills and experience.
3	Should have drive to take initiative and deliver the deliverables for the final product.
4	Issue Resolving and Problem Solving skills

### 3.4 **Functional Consultant-Data Warehousing**

#### **Deliverables, Qualifications, Experience & skills**

	<b>Deliverables</b>
1	Develop and maintain an end-to-end enterprise data governance program, working with management at all levels to manage enterprise data and the processes that leverage it.
2	Establish the data strategy together with the relevant stakeholders.
3	Implement and maintain best practice data management procedures around data standardization, data preparation, data architecture, data quality and data integrity improvement initiatives.
4	Focuses on information requirements, workflow, logical processes, interfaces between varying systems, internal and external checks and controls, and outputs.
5	Serves as the lead technical resource in the oversight, planning, and implementation of data models, data dictionaries, master data repositories and the processes around master data, and database structural design and development.
6	Responsible for the structure and performance of a data warehouse, ensuring development teams have the optimum environment in which to deliver applications
7	Responsible for the strategy and implementation of the master data management strategy and implementation
8	Develop and maintain a formal description of the data and data structures - this can include data definitions, data models, data flow diagrams, etc. (in short metadata).
9	Plan and conduct audits of information processing systems and applications to ensure accuracy of information and data integrity
10	Engage in business analysis, information acquisition analysis and design, data access analysis and design, archive and recovery strategy, security, and change management
11	work within the architecture group and business to ensure alignment of the technical delivery
12	Conduct systems requirement analysis review and Explain to Developer.
13	Lead the Development of middle-tier links to SQL Server databases, Web Services Architecture.
14	Lead, perform, and actively participate in formal design, and code reviews.
15	Coding of the critical parts of a project.
	<b>Minimum Educational Qualification</b>
1	BE/B. Tech/MCA or any Bachelor Degree with Degree/Diploma in

	Computer Science/Information Technology
	<b>Professional Certification is desirable</b>
	<b>Experience &amp; Skills</b>
1	5-7 years of experience in IT with application systems design and implementation and database management systems including RDBMS, ETL, data normalization, data warehousing concepts and techniques.
2	Knowledgeable in the delivery of data architecture solutions. This includes proficiency in areas such as metadata management, master data management, data governance and data solutions management
3	Experience developing Information management strategies for data management, service oriented architecture platforms, enterprise data warehouses.
4	Experience with data architecture and data modelling including demonstrated expertise managing data requirements, data flow diagramming, data profiling, and conceptual data
5	Modelling skills including logical and physical design
6	Proficiency with Master Data Management (MDM) and Data Cleansing - ability to design, create, and use master data management techniques.
7	Experience leading data governance, data standardization, data preparation, data architecture, data quality and data integrity improvement initiatives.
8	Proficiency with the following databases: MS SQL Server 2008
9	Proficiency with Extract, transform, and load (ETL) tools - ability to design, create and utilize data services and ETL processes utilizing ETL tools.
10	Extensive experience developing and implementing N-tier solutions.
11	Solid understanding of Microsoft system operations in designing and developing applications using Dot NET technologies.
12	Proficiency in model driven architecture and development techniques and UML
	<b>Soft Skills</b>
1	Communicates clearly and effectively with business, team members and management.
2	Candidates must have good client facing skills and experience.

### 3.5 Lead Developers–BI

#### **Deliverables, Qualifications, Experience & skills**

	<b>Deliverables</b>
1	Build, develop, and manage a MS SQL Server relational database using data warehousing best practices. Design and implement multi-dimensional database models (logical and physical), data marts, data warehousing, data transforms, data analytics, and reporting solutions.
2	Provide onsite development including responsibility for the day-to-day performance, maintenance, and monitoring of the Data Warehouse

	system and its technical interfaces.
3	Design architecture, map business rules and processes into technical solutions.
4	Designing and leading the development of production SQL and database changes as well as assistance with the design of efficient database and storage structures.
5	Perform analysis, development, and evaluation of data mining in a data warehouse environment that includes data design, database architecture, metadata, and repository creation.
6	Hands-on ETL development and Review ETL load jobs for consistency and quality.
7	Provide ETL design, development and testing estimations based business requirements and research into data that is currently sourced.
8	Design of Data Mart solutions including star schema and cube designs.
9	Implement Data Management strategies which include validation of source data and the use of data in management reporting.
10	Develop design specifications, unit test plans, and troubleshoot client issues. Work with a diverse project team with an emphasis on repeatable processes and technical documentation
11	Perform hands-on design, development and testing within the ETL tool environment using a mixture of GUI driven tools and hands-on SQL
12	Analyse, design and implement User Interface (reports and dashboards).
13	Educate client management and business users on business value and capabilities of data warehousing and business intelligence
14	Provide advice and guidance on data warehousing approaches and solutions, and use of data warehousing methodology
15	Assist in identifying and prioritizing business information needs, and defining business benefit of data warehousing
16	Assist in evaluating and selecting data warehousing tools for business intelligence, data population, data management, metadata management, and warehouse administration
17	Responsible for supporting the architecture and design of the data warehouse, data marts and BI reports which will support various data initiatives
18	Performs table and interface design, development of logical and physical data model/database, ETL processes, BI reporting/OLAP cubes/OLAP reporting, and population and tuning of databases/ETL processes/BI reports/queries while meeting business/user requirements
19	Create technical documentation.
20	Perform unit test of the codes
21	Author user manuals and installation guides
	<b>Minimum Educational Qualification</b>
1	BE/B. Tech/MCA or any Bachelor Degree with Degree/Diploma in Computer Science/Information Technology

	<b>Professional Certification is desirable</b>
	<b>Experience &amp; Skills</b>
1	Minimum 3 years' experience designing and developing applications using Dot NET technologies
2	Competent in writing optimized code and Tuned Complex SQL Queries, working knowledge of MS SQL 2005 and MS SQL 2008 and Well versed in SQL Reporting.
3	Experience in Dimensional Databases and OLAP Cubes.
4	Strong analytical and problem solving skills with attention to detail.
5	Solid understanding Microsoft system operations.
6	Holding a Microsoft certification is a plus.
	<b>Soft Skills</b>
1	Communicates clearly and effectively with business, team members and management.
2	Candidates must have good client facing skills and experience.

### 3.6 Security Expert/Manager

#### **Deliverables, Qualifications, Experience & skills**

	<b>Deliverables</b>
1	Act as a Subject Matter Expert (SME) on application and/or database security
2	Perform application vulnerability scans and code reviews web scanners, database scanners and static code analyzers
3	Carry out application, database risk, and vulnerability assessments to ensure compliance
4	Work on creating Marketing and Sales collaterals and assist Business Development teams in solutions formulations or RFPs
5	Create application security testing Methodology and test cases
6	Perform SDLC assessment
7	Perform application security architecture assessment
8	Carry out application security training for different teams
9	Perform code review using source code analyzer
	<b>Minimum Educational Qualification</b>
1	BE/B. Tech/MCA or any Bachelor Degree with Degree/Diploma in Computer Science/Information Technology
	<b>Professional Certification is desirable</b>
	<b>Experience &amp; Skills</b>
1	7 years of experience with minimum 3-4 years of Application Security Experience.
2	Strong familiarity with core application security testing principles.
3	Good working knowledge of application exploitations and their remedies (e. g. Cross Site Scripting, SQL injection attacks, and buffer overflow)
4	Thorough understanding of application architecture and the various application tier and database tier components (e. g. Schemas,

	database objects, and file system structure.)
5	Experienced with programming languages commonly used in application development, with the ability to review code for script languages (HTML, JavaScript, PHP, ASP) and compiled languages (.NET 3.5, C#).
6	Core competences with Microsoft technologies ASP. NET 3.5, SQL Server 2008, etc essential.
7	Code security assessment including configuring scanners, carrying out scans, prioritizing results, and developing detailed recommendation for remediation.
8	Familiar with key security concepts/frameworks such as Open Web application Security Projects (OWASP), common Vulnerabilities and Exposures (CVE), and /or common Vulnerability Scoring System (CVSS)
9	Experience with Source Code analyzers/Byte Code scanners (FXCrop, StyleCop, OWASP O2 Platform, etc) and able to evaluate the results.
10	Security Policy and Standards Creation
11	Security Training & Awareness
12	RDMS experience, e.g. MS SQL Server 2008
13	Infrastructure Security (Perimeter, Network, Application, Operating System, Mobile Device).
14	Analyze and evaluate Networks and Security Vulnerabilities (intrusion detection, patch management, firewalls etc)
15	Well versed with Encryption Tools and techniques and various communication protocols.
16	Desired Certification in any one of following – CISSP, CISSM, ISSA, MCSE Security
	<b>Soft Skills</b>
1	Communicates clearly and effectively with business, team members and management.
2	Candidates must have good client facing skills and experience.

## Part – II

### TOR related information

1	Names of different departments / ministries and different places where different tasks relating to the assignment are to be performed.	The work will have to be performed at Project Cell (CPSMS), O/o the CGA, Ministry of Finance, Room No. 202, 203 & 204, 2 <sup>nd</sup> Floor, Palika Bhawan, R. K. Puram, New Delhi-110066 and at the new office building which is under construction at INA, New Delhi. Expected date of shifting to new office premise is April 2011. The incumbent may have to visit different ministries and departments and different States of India study, review and meetings.
2	Procedure for review of the work of the Firm/Agency after award of contract including testing, validation, approval. The name and/or designation and address of the officials responsible for reviewing the work of the Firm/Agency may also be included here.	The progress of work will be reviewed on daily/weekly basis by the Asstt. Controller General of Accounts and Dy. Controller General of Accounts or their representative officers.
3	Expected input of key professionals and requisite expertise and number of key professional staff.	The output that is required of the IT Professional is mentioned in the Datasheet and Terms of Reference.
4	Expected schedule for completing the assignment. If an assignment consists of more than one activity, the target period/date for completing each activity can also be specified.	Time for completion of various processes will be scheduled periodically by the Project Cell for ensuring scheduled compliance by the IT Professional. Target date shall be reviewed and fixed on weekly basis.
5	Background material including data available and to be provided to the Firm/Agency.	Background material including vision document, System Requirement Specifications, data and access to all relevant information & documents such as System Requirement Specifications, data, Progress Reports, roll out plan, detail of progress achieved in development of

		different modules of the CPSMS system shall be provided/ arranged by the Employer/Authority.
6	Facilities which can be provided to the Firm/Agency.	Infrastructural facilities such as Office, Tel., Fax, Computer with Internet Connection (NIC Line), Stationary and administrative support shall be provided. He/She will get the full support & coordination of other members of the IT Team involved in Software Development for the CPSMS portal. No official vehicle to attend office will be provided by the Authority. However, the free parking space for private vehicle shall be provided by the Authority in the basement of office building subject to availability of space.
7	Any other related information specific to the study/ assignment which is necessary to be furnished to all the bidders.	