Request for Proposal for Selection of

Application Development & Maintenance Agency (ADMA) for CRS and SRS

Project *VISTAR* (Vital Statistics and Registration)

RFP No.2/31/2018-VS (CRS)

Date of Issue: 15 June 2018



Issuing Authority:

Office of the Registrar General & Census Commissioner, India

Government of India

Ministry of Home Affairs

2/A, Man Singh Road New Delhi – 110 011

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OFFICE OF THE REGISTRAR GENERAL, INDIA
(Government of India, Ministry of Home Affairs)
2/A, Man Singh Road, New Delhi – 110 011

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Notice Inviting Tender

Office of the Registrar General, India (hereafter referred to as ORGI), having its Office at 2/A, Man Singh Road, New Delhi - 110 011, invites responses ("Proposals"/ "Bids") to this RFP from eligible Bidders to be appointed as Application Development & Maintenance Agency (ADMA).

Interested Bidders are advised to study this RFP document carefully before submitting their proposals in response to this RFP Document. Submission of a proposal in response to this RFP shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.

The RFP can be downloaded from ORGI website at www.censusindia.gov.in and https://eprocure.gov.in/epublish/app. Any subsequent corrigenda / clarifications will be shared on the e-mail ids provided by the organizations/ individuals.

The time, date and venue details related to the pre-bid meeting and proposal submission are mentioned in the Bid Data Sheet. Proposals must be received not later than time, date and venue mentioned in the Bid Data Sheet. Proposals that are received after the deadline will not be considered. Bidder will be selected under Quality & Cost Based Selection criteria and procedures described in this RFP.

To obtain first-hand information on the assignment, Bidder is encouraged to attend the pre-bid meeting on the date and venue mentioned in the Bid Data Sheet. Attending the pre-bid meeting is optional.

14/6/18

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Bid Data Sheet

Sl. No.	Item	Description
1	Name of the RFP	Selection of Application Development & Maintenance Agency for CRS and SRS
2	Tender Inviting Authority	Office of the Registrar General, India
3	Bid submission	Bids have to be submitted online on the Central Public Procurement Portal (URL: http://eprocure.gov.in). Bidders will have to submit EMD in a sealed envelope as per the last date and time of bid submission at DD(Admin),2/A, Man Singh Road, New Delhi – 110011,
4	Method of Selection	Quality & Cost Based Selection (QCBS)
5	Availability of RFP documents	RFP would be available on ORGI website at www.censusindia.gov.in and https://eprocure.gov.in/epublish/app
6	Date of RFP issue	15th June 2018
7	Bid Security/ Earnest Money Deposit (EMD)	INR 15,00,000/- in form of DD or Bank Guarantee from a nationalized / scheduled bank in favour of: PAO Census, MHA, payable at New Delhi
8	Last date for Procurement of RFP	Same as bid submission date
9	Last date for Submission of Pre-Bid Queries	Time: 05:00 PM Date: 22nd June 2018 All pre-bid queries are required to be submitted in spreadsheet format by Bidders to the email id : vshrinivasan.rgi@censusindia.gov.in
10	Pre-Bid Conference Time, Date, & Venue	Time:11:00 AM Date: 29th June 2018 Venue: Conference Room, Office of the Registrar General, India, 2A, Man Singh Road, New Delhi
11	Publishing of Responses to pre-bid queries / corrigendum by ORGI	To be intimated later. Responses to the pre-bid queries would be published on www.censusindia.gov.in and https://eprocure.gov.in/epublish/app

Sl. No.	Item	Description
12	Bid Submission Start Date	Date: 6th July 2018 Time: 9:30 AM
13	Last date and time for Bid/Proposal submission (on or before)	Date: 16th July 2018 Time: 11:00 AM
14	Bid Opening Date	Date: 17th July 2018 Time: 11:00 AM
15	Date for Technical Presentation by Bidders	To be intimated later
16	Date and time for Opening of Commercial Bids.	To be intimated later
17	Language of Bid Submission	Proposals should be submitted in English only
18	Bid Validity	Proposals must remain valid up to 90 (Ninety days) days from the last date of submission of the Bids.
19	Currency	Currency in which the Bidders shall quote the price and will receive payment is INR only
20	Name and Address for Communication and seeking clarifications	DD(General Section) 2A, Man Singh Road, New Delhi-110011

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Abbreviations

AAA	Authorization and Accounting
ADMA	Application Development & Maintenance Agency
CA	Contract Agreement
CIRBD	Central Integrated Repository of Births and Deaths
CPMU	Central Project Monitoring Unit
CPP	Central Public e-Procurement
CRS	Civil Registration System
DSC	Digital Signature Certificate
EMD	Earnest Money Deposit
LLP	Limited Liability Partnership
NIT	Notice Inviting Tender
ORGI	Office of Registrar General of India
PBG	Performance Bank Guarantee
PBR	Policy Based Routing
PMU	Project Management Unit
RBAC	Role based access control
RBD	Registration of Births and Deaths
RFP	Request for Proposal
SIRBD	State Integrated Repository of Births and Deaths
SNMP	Simple Network Management Protocol
SOP	Standard operating Procedures
SRS	Sample Registration System
TC	Total of all costs
ULB	Urban Local Bodies

1. Introduction

1.1. Project Background

Civil Registration System (CRS): It is the unified process of continuous, permanent and compulsory recording of the vital events (births, deaths, still births) and characteristics thereof. The Registration of Births and Deaths Act, 1969 provides for the compulsory registration of births and deaths. For the country, the requirement of an effective Civil Registration System is a must as it has important administrative and statistical uses. The data generated through a complete and up-to-date CRS is essential for socio-economic planning and to evaluate the effectiveness of various social sector programmes. They also serve as the cornerstone of public health system.

Sample Registration System (SRS): With a view to generate reliable and continuous data on the vital indicators, the Office of Registrar General, India, initiated the scheme of sample registration of births and deaths in India popularly known as Sample Registration System (SRS) in 1964-65 on a pilot basis and on full scale from 1969 70. The SRS since then has been providing data on a regular basis.

In order to address the challenges faced by the system in providing prompt service delivery to the citizens and generate reliable vital statistics, Office of Registrar General of India (ORGI) intends to introduce transformational changes in the CRS and SRS through an IT-enabled backbone leading to registration of births and deaths on near real-time basis with minimal human intervention. As a first step, ORGI intends to develop a central integrated repository of births and deaths and completely automate SRS.

1.2. Purpose of this RFP

The purpose of this RFP is to select an 'Application Development & Maintenance Agency "hereinafter called ADMA".

1.3. Project Objectives

The objectives of this project are two-fold:

(A) To revamp the Civil Registration System

(i) Design, development, deployment and maintenance of Central Integrated Repository of Births and Deaths (CIRBD) application

(ii) Design and development of Model State Integrated Repository of Births and Deaths (SIRBD) application including module for registration of events

(iii) Maintenance of existing Central CRS application of ORGI

(iv) Assistance in migration of Central CRS application data of ORGI to SIRBD for identified states

(v) Operations & Maintenance

(B) To revamp the Sample Registration System

(i) Design, development, deployment and maintenance of Sample Registration System application including mobile application

(ii) Migration of existing data to new SRS application

(iii) Operations & Maintenance

1.4. Generation of Vital Statistics

In India, the vital statistics are generated through two parallel systems which complement each other viz. CRS and SRS. These two systems are discussed as follows:

1.4.1. Civil Registration System in India

The event of birth and death is to be registered at the place of occurrence of event. The Registrar in whose jurisdiction (called the Registration Unit) the event has occurred is empowered to register the event. In general, in urban areas the municipal bodies have been designated as the Registrar while in rural areas the gram panchayats have been designated as Registrar. Some of the larger government hospitals have also been designated as Registrars for events occurring within their premises. In other cases, there are Registrars designated for cantonment areas, notified industrial areas, forest areas etc. The Registrar issues birth and death certificates after registration of the event. In any case, the Registrars are required to compile the monthly returns and send it to the District Registrar.

The State Government appoints a District Registrar for each revenue district and such number of Additional District Registrars as it thinks fit. A District Registrar's duties primarily include supervision of births and deaths in the district. District Registrars may be District Collector / Deputy Commissioner / Chief Medical Officer / District Health Officer / Statistical Officer etc.

The District Registrars are required to compile the monthly returns from all the Registrars and send it to the Chief Registrar on monthly basis. The nodal department (to whom the Chief Registrar belongs) for registration of births and deaths varies from state to state. The Health Department supervises the civil registration work at State level in 21 States/UTs, Department of Planning, and Economics & Statistics in 12 States / UTs, Department of Panchayats in Kerala, Revenue in Dadra & Nagar Haveli and Local Administration Department in Puducherry. The final stage includes sending the data from the states to the Office of Registrar General of India in the Central Government who publishes the annual report based on the data received from various states.

Details of the civil registration process for the existing CRS application are provided in Annexure 1.

1.4.2. Sample Registration System in India

The main components of SRS are:

(i) **Baseline Survey:** The base-line survey is carried out prior to the start of continuous enumeration. This involves preparation of a notional map of the area to be surveyed, house numbering and house listing and filling of a household schedule. The supervisor prepares a notional map with the help of the enumerator showing important landmarks and location of the houses to be covered in the sample unit. Subsequently, a list of houses/households to be covered by the sample in the **House List (Form-1)** is prepared and the **Household Schedule (Form-2)** is filled in. In the Household Schedule (Form-2), the residential status and other demographic particulars of each individual residing in the household viz. identification code, name, sex, date of birth, age, educational/marital status and relation to head of household, etc. are recorded. The inmates of public institutions like hotels, schools and hospitals are excluded, but households living permanently within the compound of such institutions are covered. A list of all women in the reproductive span along with their pregnancy status is also prepared in **Form 3** at the time of the base line survey.

(ii) **Continuous enumeration:** The enumerator maintains a **Birth Record (Form 4)** and a **Death Record (Form 5)** in respect of his/her area. The enumerator is expected to record all births

and deaths occurring within the sample unit, as well as those of the usual residents occurring outside the sample unit. The events in respect of visitors occurring within the sample unit are also listed, but these are not taken into account while calculating rates. Thus, the events to be netted by the enumerator are those pertaining to: (i) usual residents inside the sample unit; (ii) usual residents outside the sample unit; (iii) in-migrants present; (iv) in-migrants absent; and (v) visitors inside the sample unit.

For ensuring complete netting, the enumerator uses different sources to get information of the occurrence of vital events in the sample unit. These include the help of the village priest, barber, village headman, midwife and such other functionaries. The enumerators maintain contact with these informants at frequent intervals and collects information about the occurrence of births and deaths. On being informed about the occurrence of an event, the enumerator visits the concerned household and records the prescribed particulars. The enumerator also keeps in touch with other socially important persons and visits local or nearby hospitals, nursing homes, cremation or burial grounds, at frequent intervals to keep updated about the occurrence of events. Besides, enumerator maintains and updates a list of all women in the reproductive span along with their pregnancy status, which helps in better netting of all the births. Despite all these efforts, the enumerator may miss information about some of the events and is, therefore, required to visit all the households once a month in urban area and once in a quarter in rural areas so as to ensure that all the events have been recorded.

(iii) **Half-yearly survey:** Half-yearly survey is carried out independently in each sample unit by a full-time supervisor. The supervisor belonging to the statistical cadre of the State Census Directorates (either a Compiler or a Sr. Compiler or a Statistical Investigator or any suitable official) visits each household in the sample unit and records the particulars of births and deaths in **Forms 9 & 10** respectively in respect of all the usual residents and visitors (only those occurring within the sample unit) which had occurred during the half-yearly period (January-June or July-December) under reference. Simultaneously, the house-list, the household schedule and the pregnancy status of women are updated by making entries of changes, if any. While carrying out this survey the supervisor does not have access to the birth and death records of the enumerator for the same periods which are withdrawn from the field before the supervisor's visit for the half yearly survey. The Half Yearly Surveys are retrospective in nature and therefore the first HYS for reference period January-June of a year takes place in July- November period of that year and the Second HYS pertaining to July-December of a year takes place in January-May of the subsequent Year.

(iv) **Matching:** On completion of the half-yearly survey, the events captured in the **Forms 9 & 10 (filled-in by the supervisors)** are compared with those in the **Forms 4 & 5 (filled-in by the enumerators).** This is done at the office of Directorate of Census Operations for all States except for rural areas of Kerala and Maharashtra, where it is done at the Directorate of Economics and Statistics of the respective States. Selected important entries in the enumerator's and supervisor's record are matched item by item and events are classified as fully matched, partially matched and unmatched. The items generally considered for matching for birth events are: Identification code of the head of Household and mother, Relationship of the mother to head, date of live birth, month in case of still birth/abortion, sex in case of live birth /still birth and the items considered for death events are: identification code of the head of household and mother in infant death, relationship of the deceased to head, date of death and sex of the deceased.

(v) **Field verification of unmatched and partially matched events:** Every unmatched or partially matched event is verified by a visit to the concerned household. This is done either by a third person or jointly by the supervisor and the enumerator, depending upon the availability of staff.

Details of the SRS forms are provided in Annexure 2.

1.5. Key Stakeholders

1.5.1. For CRS

(i) Informant

An Informant is the individual or institution who has been designated under the Section 8 and 9 of the Registration of Births and Deaths Act, 1969 to report the occurrence of an event of birth, still birth or death within the prescribed time period to the Registrar in the concerned jurisdiction. The information to be given shall be in Form 1, 2 or 3 for birth, death and still birth respectively. The informant must report an event to the Registrar under whose jurisdiction the event has occurred.

Depending on the place of occurrence of events, the following could be informants:

(a) For domiciliary events – Head of households
(b) For institutional events – Medical Officer-in-charge, Jail Superintendent etc.
(c) For public place – Headperson, Officer-in-charge of Police Station
(d) For moving vehicle – Person-in-charge of the vehicle
(e) Plantation – Supervisor of the plantation

(ii) Notifier

Notifier is appointed by the Registrar under Section 8 and 10 of the Registration of Births and Deaths Act, 1969 to notify every birth or death or both which she / he attended or was present at or which had occurred in the area under jurisdiction of the concerned Registrar.

Depending on the place of occurrence of events, the notifiers could be mid-wife, health attendant, Aanganwadi, ASHA workers, keeper of cremation place or, burial grounds etc.

(iii) Registrar

Registrar is a public authority appointed by the State Government for each local area comprising the area within the jurisdiction of a municipality, Panchayat or other local authority. The Registrar has to ascertain and enter in the register every birth and of every death which takes place in his/her jurisdiction and maintain all information given to him/her under Section 8 or Section 9. The Registrar has the authority to investigate the event that has been brought to his notice for approval or take *suo moto* cognizance of the event which has come to his knowledge.

(iv) District Registrar, Chief Registrar and ORGI

All the three above mentioned authorities are responsible for supervision of registration activities at various levels. District Registrar is responsible for consolidating all registration related data at a district level and is also responsible for monitoring and supervising all registrars in his district to ensure compliance of registration activities. Similarly Chief Registrar is responsible for consolidating all registration related activities at State Level and also monitoring and supervising the registration related activities performed by District Registrars of all Districts in the concerned state. ORGI operates from the Centre and is responsible for providing guidance and direction to Chief Registrars in the matter of registration of births and deaths and also takes necessary steps to co-ordinate and unify the registration related activities of Chief Registrars.

1.5.2. For SRS

SRS in India is based on a **dual record system**. Main users of SRS are:

(i) ORGI – SRS helps in generation of customized Reports, Tables, Indicators, Charts for ORGI
(ii) The field investigation under Sample Registration System consists of continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident **part-time enumerator (PTE). PTEs** are usually Anganwadi workers and teachers.
(iii) An independent six monthly retrospective survey by a **full-time supervisor** is conducted.
(iv) The data obtained through these two sources are matched by **Directorate of Census Operations (DCO)**. The unmatched and partially matched events are re-verified in the field to get an unduplicated count of correct events. The advantage of this procedure, in addition to elimination of errors of duplication, is that it leads to a quantitative assessment of the sources of distortion in the two sets of records making it a self-evaluating technique.

1.6. Key Challenges

1.6.1. CRS

With increasing penetration of digital services, the state / local governments have started using IT as an enabler in the registration of births and deaths. Various States and within these States various Urban Local Bodies (ULBs) have setup their own IT infrastructure and applications for this purpose. These applications are at various levels of maturity. However, there are still few areas where the registration of birth and death is done manually.

The data provided to the upper level functionaries (District Registrars, Chief Registrar and Office of Registrar General of India) is only in the form of statistics and intricate details of any registered event are not available to them. Moreover the details available to these higher level functionaries is not in real or near real time and is mostly delayed by many months. Such lag in information results in delay of formation of targeted policies and their implementation. The digital platforms being used are not integrated to any central repository which provided an overall view to ORGI. There are some states which have done an integration of data at their state level and are able to generate vital statistics. However, many states do not have an integrated system for aggregation of registration data from various CRS applications.

1.6.2. SRS

The existing SRS software has the following issues:

(i) The HYS, PTE and DCO module works offline and lacks seamless integration
(ii) The application used by Supervisor (HYS Module - Mobile App) is not integrated with DCO and PTE Module
(iii) There is no provision for data capture at source for PTE
(iv) The database performance is inconsistent and experiences random errors
(v) There are design flaws in the matching algorithm that has been used in the software
(vi) There are issues of duplicate record generation in the system
(vii) System is not optimized in terms of queries and coding
(viii) Security testing has not been performed for the mobile application used by supervisors and hence it may be vulnerable to external attack
(ix) Report generation requires manual intervention
(x) Inconsistent layout across modules

1.7. Existing Applications hosted by ORGI

1.7.1. For CRS

There is an existing central CRS Application hosted by ORGI for the registration of births and deaths. It is a web-based application used as a common solution for Birth, Death and Still Birth Registration and Certificate generation in many states / UTs. This application provides centralized data management of all recorded events for Birth, Death and Still Birth registration. This application also facilitates generation of reports for analysis and planning based on data of birth, death and still birth registration.

The existing central CRS Application is being actively used by around 24 States / UTs (partially or fully) for the registration of births and deaths. A single instance of this application is being run for all the states and UTs which are using it. The number of active RUs have increased manifolds since the inception of this portal. The total number of birth records and death records stand at approximately 19 million and 5 million respectively as on date and it is counting. On any business day, around 40,000 to 50,000 new records are getting added in this database. CRS application also facilitates generation of reports for analysis and planning based on data of birth, death and still birth registration. In its current form and design, it is not ready for migration to states for deployment in their own environment.

The key functions of the central CRS application are:

a. User Registration
b. Master Data Management
c. Birth Registration
d. Death Registration
e. Still Birth Registration
f. Issuance of Not Availability Certificate (NAC)
g. Reports Generation
h. Birth/Death/Still Birth register download
i. Search and verify Birth
j. Search and verify Death
k. Status of application for Reported Birth
l. Status of application for Reported Death

Further details related to the technical specifications of existing CRS application is provided in Annexure 3.

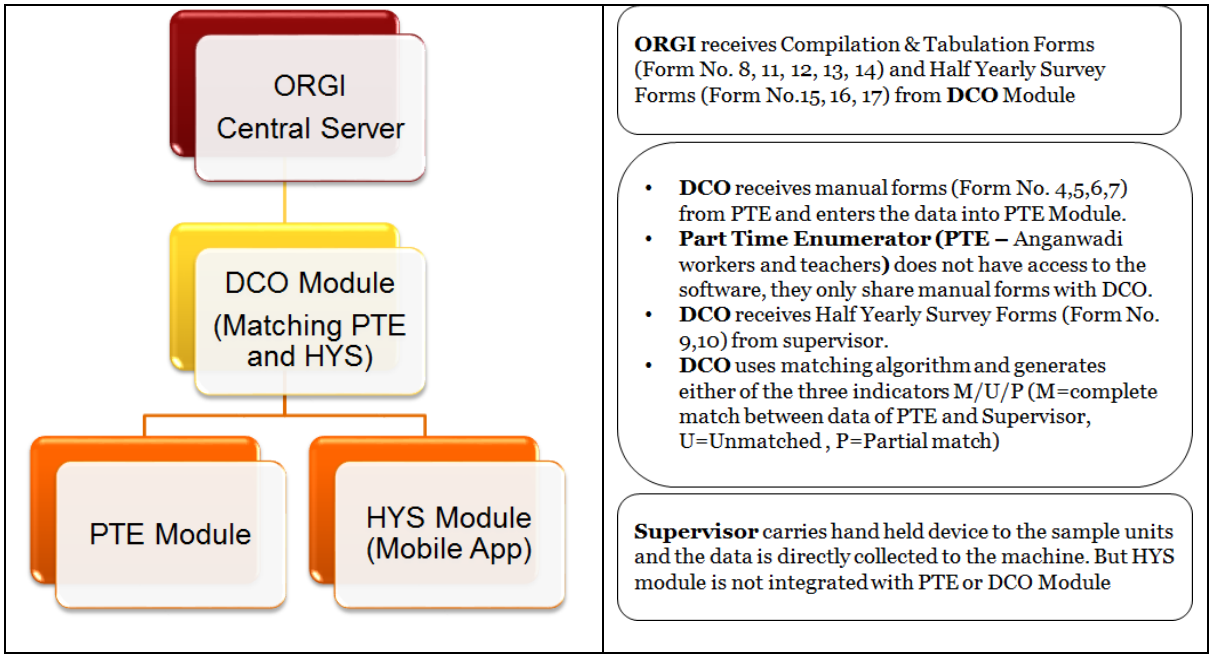
1.7.2. For SRS

The key highlights of current SRS application are:

(i) **Part Time Enumerator (PTE – Anganwadi workers and teachers)** does not have access to the software, they only share manual forms with DCO.
(ii) **DCO** receives manual forms (Form No. 4, 5, 6, 7) from PTE and enters the data into PTE Module.
(iii) **Supervisor** carries hand held device to the sample units and the data is directly collected to the machine under the **Half Yearly Survey (HYS) Module,** consisting of Half Yearly Survey Forms (Form No. 9, 10). But HYS module is not integrated with PTE or DCO Module.
(iv) **DCO** uses matching algorithm and generates either of the three indicators M/U/P (M=complete match between data of PTE and Supervisor, U=Unmatched data of PTE and Supervisor, P=Partially matched data of PTE and Supervisor). In case indicator generated is

M, the data is shared with ORGI, if U or P is generated then DCO sends another supervisor for reverification

(v) **ORGI** receives Compilation & Tabulation Forms (Form No. 8, 11, 12, 13, 14) and Half Yearly Survey Forms (Form No.15, 16, 17) from **DCO** Module for those entries in DCO module which have generated an indicator M after running matching algorithm.



1.8. Envisaged IT Solution

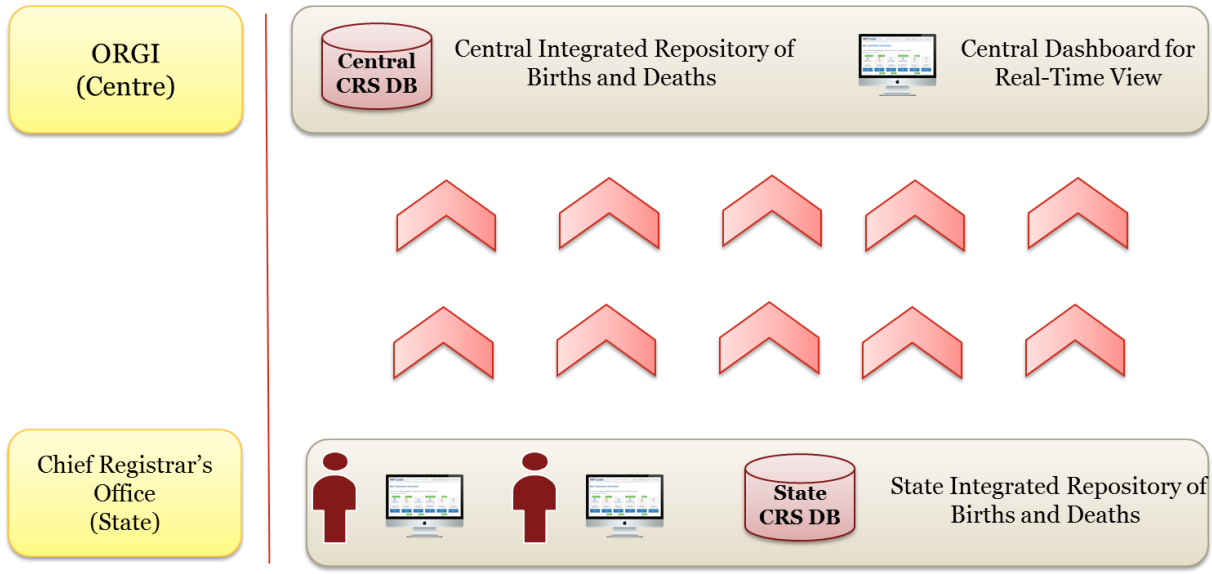
There would be two separate application stacks for CRS and SRS. These are discussed as follows:

1.8.1. For CRS

To execute the strategy for addressing the issues faced by the civil registration system, ORGI has decided to develop two web-based applications:

(i) **Central Integrated Repository for Births and Deaths (CIRBD):** A central web-based application which will enable the digitally-ready States / UTs to get integrated with it. The CIRBD will therefore be able to consolidate CRS data from the states / UTs and generate vital statistics state-wise and district-wise. It is envisaged that automated reporting and consolidated should happen and the details shall be available in the form of dashboards and reports to ORGI.

(ii) **State Integrated Repository for Births and Deaths (SIRBD):** A state-level web-based application viz. State Integrated Repository for Births and Deaths (SIRBD) would also be developed and provided to certain states for adoption. The SIRBD would also have the functionality to report events, register events, issue digitally signed certificates, search records etc.



The deployment of the SIRBD in the states is not in the scope of this RFP. However, the Bidder would have to provide necessary support and handholding to such states as required.

The Bidder for this RFP has to provide the detailed technical solution including proposed architecture, technical specifications and implementation approach in the technical bid.

1.8.2. For SRS

It has been envisaged that as part of revamped SRS, all modules will be integrated and there will be requirement for minimal manual intervention. Major changes have been mentioned below:

(i) The existing software consists of PTE Module, which is used by DCO for data entry of manual forms shared by PTE. In the new system, PTEs will have access to SRS and instead of filling manual forms and sharing with DCO, they can directly access the software and fill the required forms online and submit these forms.
(ii) As soon as PTEs submit forms online, DCOs will have access to view these forms
(iii) Module for Supervisors will be integrated with DCO module for matching and reverification. As soon as Supervisor fills forms and submits, the same will be shared with DCO.
(iv) DCO will be able to view the data of PTE and Supervisor and verify whether these two sets of data are same.
(v) Matching algorithm which will be part of the new software, will help DCO in verifying the data
(vi) ORGI will be able to view customized SRS reports and statistics based on various criteria such as age, sex, income, education.

1.9. Project Outline

The key outline of this project are as follows:

(i) Track 1 – Maintenance of existing CRS Application

a. ADMA on-boarded will be responsible for maintaining existing CRS application.
b. Maintenance would include making necessary updates, bug-fixes and improvements in the application.
c. It would include extraction / generation of vital reports and other reports based on various parameters as and when required by ORGI.

(ii) Track 2 – Development & Deployment of CIRBD & Development of Model SIRBD and Operations & Maintenance of CIRBD

a. A central portal called the CIRBD would be developed for ORGI which would be able to generate Vital Indicators at Country level, State level and District level.
b. CIRBD would not have any have any facility for registration of births and deaths.
c. CIRBD will integrate with states as per following scenarios:
    (i) States which are using the existing central CRS application would be integrated with CIRBD by ORGI.
    (ii) States which have single integrated application will need to integrate with CIRBD for transmitting the required information to ORGI.
    (iii) States which do not have single integrated application are required to customize the State Integrated Repository of Births and Deaths (SIRBD) provided by ORGI and integrate with CIRBD.
    (iv) States which are registering events manually can use SIRBD application
d. Standards and specifications for integration of CIRBD with SIRBD and other state applications have to be developed.

(iii) Track 3 – Development & Deployment of SRS Application and its Operations & Maintenance

a. A central SRS application would be developed which would digitize the entire sample registration system and for generation of vital statistics
b. A mobile-based application would be developed for field work by PTEs, Supervisors & DCOs

1.10. Indicative Phasing Plan for Integration with States / UTs for integration of States with CIRBD

States / UTs have been categorized into Model 1, 2, 3 and 4 for integration of states / UTs with CIRBD:

(i) Model 1: Digitally-ready States / UTs using Central CRS application

Selection Criteria

- States / UTs using only central CRS application
- Most of the RUs are provisioned with necessary IT Infrastructure
- Civil registration is mostly done digitally in the state

Approach

- States/ UTs using central CRS application will continue to use it
- ORGI to integrate central CRS application / portal with CRS Portal
- States would be provided with SIRBD for adoption and deployment and then migrate its data from existing CRS application to their own SIRBD as and when they are ready

Coverage

- Likely applicable to States / UTs such as Haryana, Mizoram, Chandigarh, D&N Haveli, Daman & Diu, Lakshadweep etc.

(ii) Model 2: Digitally-ready States having integrated State portal

Selection Criteria

- States / UTs having integrated portal in the state
- Most of the RUs are provisioned with necessary IT Infrastructure
- Civil registration is done digitally throughout the state

Approach

- Standards & Specifications to be provided to states for integration with CIRBD
- States to periodically push the required information to CIRBD

Coverage

- Likely applicable to States / UTs such as Goa, Gujarat, Kerala, Rajasthan etc.

(iii) Model 3: Digitally-ready States NOT having integrated State portal

Selection Criteria

- States are not having single integrated application in the state
- Most of the RUs are provisioned with necessary IT Infrastructure
- Civil registration is done digitally in most RUs of the state

Approach

- States to develop integrated portal or they can use SIRBD portal given by ORGI
- Standards & Specifications to be provided to states for integration with CIRBD

Coverage

- Applicable to States such as Karnataka, Maharashtra, Punjab, Delhi etc.

(iv) Model 4: Partially-Digital States

Selection Criteria

- States do not have single integrated application in the state
- States where manual registration is also done
- Most of the RUs are not provisioned with necessary IT Infrastructure

Approach

- States to augment their IT infrastructure for registration of births and deaths
- States would be provided with SIRBD with Registration Module for adoption and deployment and then migrate its data in existing CRS application when ready

Coverage

- Applicable to States / UTs such as A & N Islands, MP, HP, UP, Bihar, WB etc.

1.11. Implementation Approach

1.11.1. Track 1: Maintenance of existing CRS Application

This track is for the maintenance of the existing CRS application and preparation of existing data for migration to states when they have deployed their own SIRBD in the states. The existing CRS application is built on PHP platform and hence PHP developers have been sought through this RFP who would start the work from Day 1 to dedicatedly manage, fix and update the application. Also, resources such as DB expert, System administrator etc. from other tracks may be utilized on need-basis without any additional cost.

1.11.2. Track 2: CIRBD & SIRBD Application

The implementation approach for Track 2 would be as follows:

(i) ORGI would develop and host the CIRBD and integrate the existing central CRS application with it to begin with
(ii) ORGI would develop and package a model SIRBD application and provide the source code to states which can be used by states for further customization and hosting as SIRBD. The SIRBD would then have to be integrated with the CIRBD
(iii) ORGI would provide the minimum system requirements, guidelines and SOPs for installation of SIRBD.
(iv) ORGI would handhold states and provide technical support, if needed, to the state implementation team for installation and configuration of SIRBD.
(v) In the long run, the existing CRS application data would be migrated to the SIRBD of the states

1.11.3. Track 3: SRS Application

The implementation approach for Track 3 would be as follows:

(i) ORGI would develop a web-based central SRS application and host it at the ORGI data centre
(ii) A mobile application would be developed for PTEs, Supervisors / DCOs to collect data from the field level and send it to the SRS application at predetermined frequency
(iii) The SRS application would generate vital statistics.

1.12. Envisaged Benefits of CRS revamp

The changes will be directed towards creating a new IT system which shall provide the enablement to achieve the following benefits:

(i) Facilitate effective functioning of the civil registration system across states by automating the reporting and registration process
(ii) Remove the redundancies and inefficiencies in the current operations and increase the overall effectiveness
(iii) Increase visibility of the operations that enables informed decision making
(iv) A near real-time view of the birth and death registrations to the concerned authority, for example: ORGI will have a bird-eye view of the registrations in the country, Chief Registrars will have a view of the events in their states and so on.

(v) Availability of a holistic view with respect to the events happening in the country. Other vital parameters may also be used to deduce important social indicators and infant mortality, sex ratio etc.
(vi) Near-census data will be available to ORGI as handy and timely information will be available to registration functionaries
(vii) Reduction in the number of duplicate entries
(viii) Targeted policies can be drafted based on the information available to the decision and policy makers based on the information availability of many vital statistics like determining the number of deaths during child birth, sex ratio, infant mortality etc.

1.13. Envisaged Benefits of SRS revamp

The changes will be directed towards creating a new IT system which shall provide the enablement to achieve the following benefits:

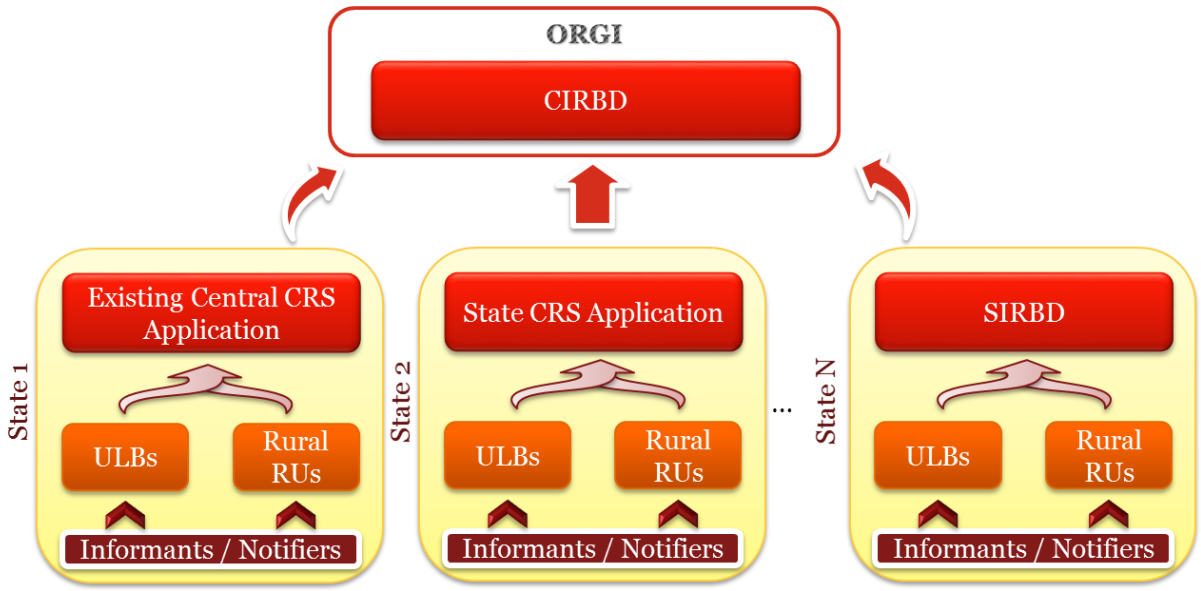
(i) Automation of Sample Registration System from field level till the generation of vital statistics.
(ii) Data capture in digital form directly will reduce time
(iii) Duplicate effort in data entry / digitization will be eliminated
(iv) Constant monitoring of progress can be done from ORGI
(v) Follow-ups with concerned functionaries would be easier
(vi) Mismatch of data and correction would be simpler
(vii) Vital statistics would be generated in much shorter time due to faster processing time

2. Envisaged IT Solution

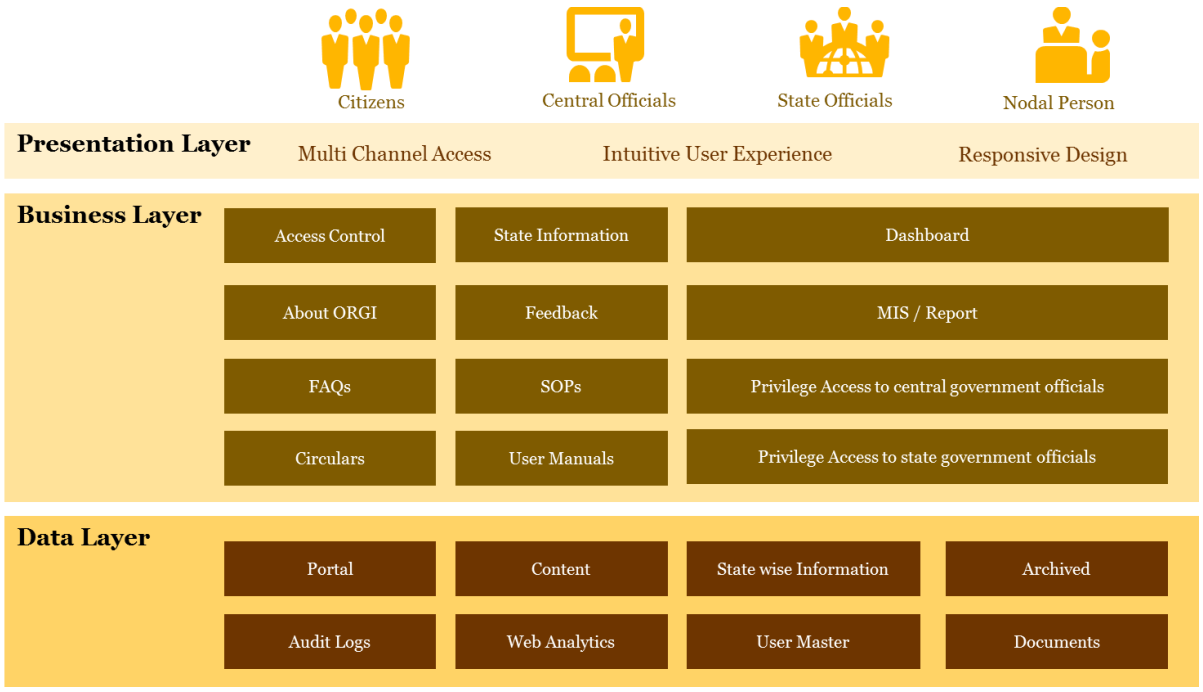
2.1. Technical Solution for CRS

2.1.1. Overall IT Application Ecosystem for CIRBD and SIRBD

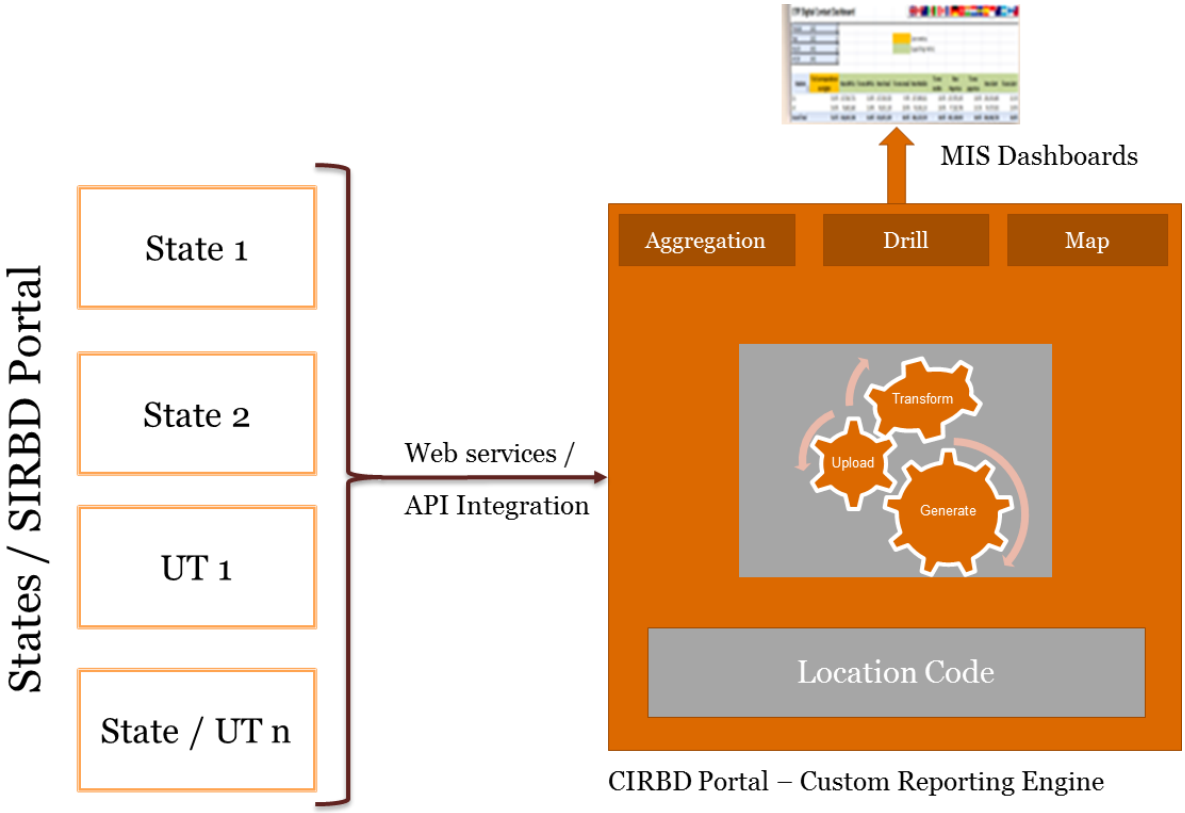
The overall IT application ecosystem would be as follows:



2.1.2. Indicative Architecture of the CIRBD Application



2.1.3. Indicative Integration Framework between State CRS Applications / SIRBD and CIRBD



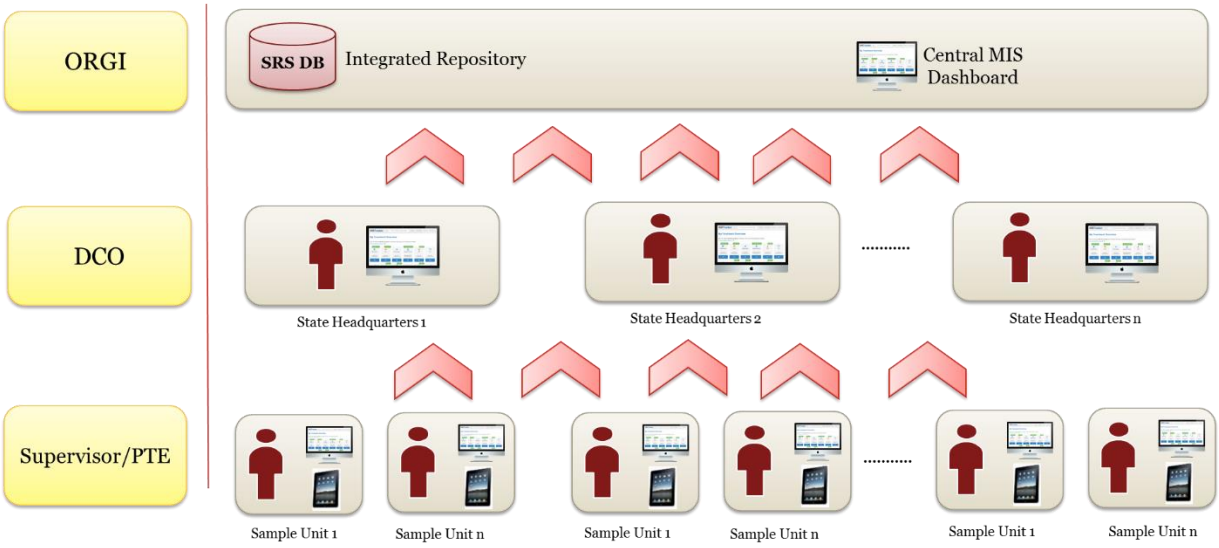
2.2. Technical Solution for SRS

It has been envisaged that as part of revamped SRS, all modules will be integrated and there will be requirement for minimal manual intervention. Major changes have been mentioned below:

(i) The existing software consists of PTE Module, which is used by DCO for data entry of manual forms shared by PTE. In the new system, PTEs will have access to SRS and instead of filling manual forms and sharing with DCO, they can directly access the software and fill the required forms online and submit these forms.
(ii) As soon as PTEs submit forms online, DCOs will have access to view these forms
(iii) Module for Supervisors will be integrated with DCO module for matching and reverification. As soon as Supervisor fills forms and submits, the same will be shared with DCO.
(iv) DCO will be able to view the data of PTE and Supervisor and verify whether these two sets of data are same.
(v) Matching algorithm which will be part of the new software, will help DCO in verifying the data
(vi) ORGI will be able to generate and view customized SRS reports and statistics based on various criteria such as age, sex, income, education etc.
(vii) All desired reports would be generated from system with no manual interventions.

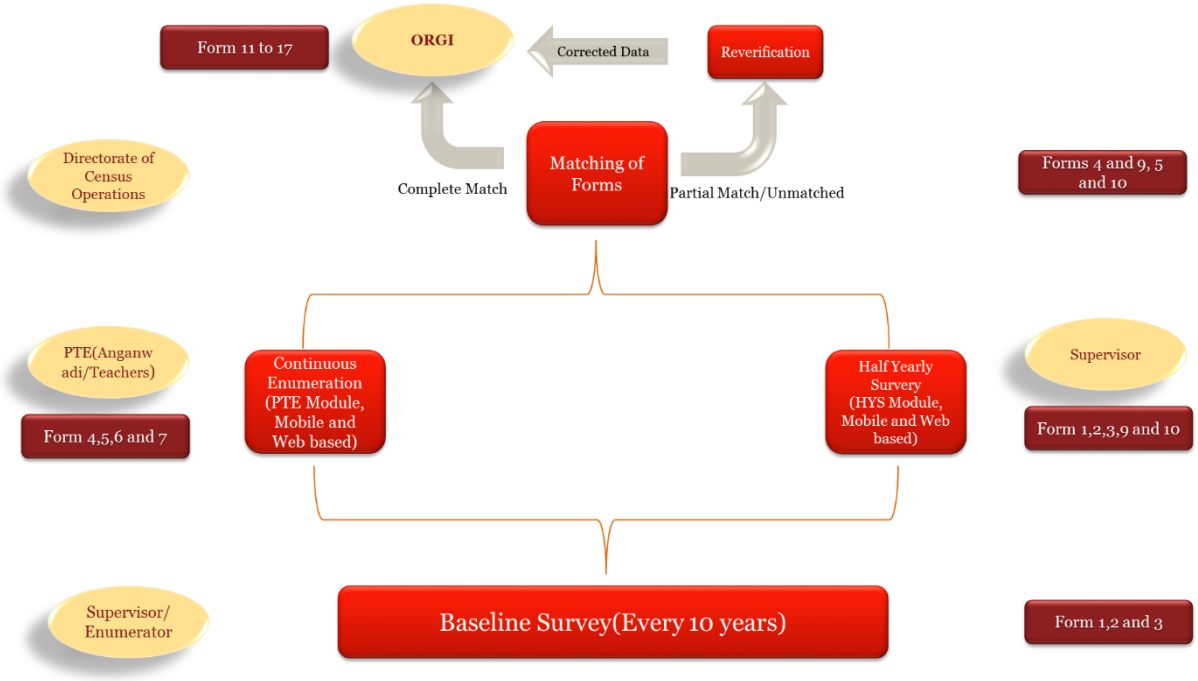
2.2.1. Overall IT Application Ecosystem for SRS

The overall IT application ecosystem for SRS would be as follows:



2.2.2. Indicative Business Architecture of SRS Application

The indicative business architecture of SRS application would be as follows:



3. Technical Standards & Specifications

The key drivers guiding the recommendations of the standards for CIRBD, SIRBD and SRS application are based on the assessment of current IT landscape and based on leading best practices adopted widely across the globe. The following key guidelines for selecting standards have been suggested:

(i) Interoperability – The standards and specifications to be recommended should facilitate interoperability bringing in the ability to effectively interconnect, collaborate, access and facilitate seamless integration in order to communicate between different applications.

(ii) Share, Re-Use and Collaborate - The standards proposed may be shared, reused and collaborative in nature for entire organization to use

(iii) Adherence to open standards - The standards, where available, be recognized and adopted by internationally recognized bodies like ISO, W3C.

(iv) Platforms and tools – It is required that all proposed solution components, software and tools used or needed for the solution would be provided along with required OEM licences for the entire contract period. Freeware / trial-ware /adware / without enterprise support would not be allowed.

CIRBD, SIRBD and SRS applications should be designed to comply with below mentioned standards and guidelines, where ADMA has to provide compliance reports or test results:

(i) Comply with latest WCAG guidelines, GIGW guidelines and OWASP guidelines

(ii) All integration will be using open API principles and architecture, use W3C and OASIS standard for web-services

(iii) User Interface should be intuitive and have responsive design

(iv) Usability guidelines include Guidance on software accessibility, Presentation of information, User and Menu guidelines etc.

(v) Should follow UML 2.0 Modelling principles

(vi) Adhere to MDDS standards as per government standards.

(vii) Security compliant and STQC certified.

4. Functional Requirements and Information Flow

The key features of the CIRBD, SIRBD and SRS application are discussed in the following sections. The detailed functional requirement specifications are to be developed by ADMA in discussion with ORGI prior to start of implementation. Indicative functional requirement specifications for CIRBD & SIRBD have been provided in Annexure 4 and functional requirement specifications for SRS application are provided in Annexure 5.

4.1. Key Features of CIRBD

Following are the key features of the CIRBD:

(i) CIRBD will be gateway to access data pertaining to registration of births and deaths, Reports, Vital Statistics etc.
(ii) Events registered in the states would be aggregated in a standardized format from the SIRBD and State CRS applications to the CIRBD
(iii) Dashboards would be available for viewing the vital statistics and indicators – State-wise, District-wise (an indicative list is provided in Annexure 6) and for the country as a whole
(iv) States would have the option to securely push information from SIRBD / State CRS application to CIRBD automatically on regular basis through web-services or manually upload information in the pre-defined format.
(v) In order to exchange the data with CIRBD, all States should adapt single standard location codes
    (a) If State already has location code of its own, then existing state code has to be mapped with CIRBD using location mapper.
    (b) If State does not have location code of its own, then State to use location code that is provided by Centre.
(vi) CIRBD will have facility to exchange data with State through
    (a) Automatic mode using Web-services - System to system data exchange
    (b) Manual data reporting by State - State Nodal person will provide information manually on CIRBD
(vii) ADMA will provide all technical standards such as web-service signature to exchange the data and approach to integrate with SIRBD and CIRBD.

4.2. Key Features of SIRBD

Following are the key features of the SIRBD:

(i) SIRBD will be gateway to access any information in State pertaining to documents such as SOP, status etc., reports
(ii) SIRBD will have consolidated data from all Districts/ Blocks / RUs in State in near real-time from one or more applications in operations in the State
(iii) To exchange the data with CIRBD, all states should adapt same location codes or use location mapper to integrate with CIRBD
(iv) SIRBD will have facility to fetch data from state CRS application(s) either Automated or Manual mode
(v) SIRBD will exchange data will CIRBD as per web-service signature provided
(vi) There will be a sub-module of SIRBD (Registration Module) which would have enhanced features of the existing CRS application such as:

a. User Registration
b. Master Data Management
c. Birth Registration
d. Death Registration
e. Still Birth Registration
f. Issuance of Birth and Death Certificate
g. Issuance of Not Availability Certificate (NAC)
h. Reports Generation
i. Birth/Death/Still Birth register download
j. Search and verify Birth
k. Search and verify Death
l. Status of application for Reported Birth
m. Status of application for Reported Death
n. Integration with Aadhaar e-KYC (if required)
o. Integration with Aadhaar e-sign (if required)
p. Integration with UIDAI for sharing Aadhaar of the deaths registered
q. SMS / Email notifications
r. Mobile App for registration
s. SMS Module for reporting events

(vii) The registration module would also have an android-based mobile application for users on the field.

(viii) Reporting of births and deaths would also be done through SMS

4.3. Indicative Information to be aggregated from States / UTs in CIRBD

The SIRBD would aggregate all fields of the registration forms from the registration module or other CRS applications. However, limited fields would be required to be aggregated in the CIRBD from the SIRBD. The following fields from the standard forms of births, deaths and still births registered are to be aggregated from the States / UTs to the CIRBD. However, aggregation would also require additional identifiers such as type of RUs – rural or urban, district name, state name, etc. as needed for segregation and analysis of the data in CIRBD.

4.3.1. Aggregation of Birth Report (Form -1)

Sl. No.	CRS Form 1 Fields	Field Required for Aggregation to CIRBD (Yes / No)
1	Date of Birth	Yes
2	Sex	Yes
3	Name of the Child (if any)	No
4	Name of the Father	No
5	Father's Aadhaar	No
6	Name of the Mother	No
7	Mother's Aadhaar	No

Sl. No.	CRS Form 1 Fields	Field Required for Aggregation to CIRBD (Yes / No)
8	Address of parents at the time of child's Birth	No
9	Permanent address of parents	No
10	Place of Birth	Yes
11	Informant's Name	No
12	Informant's Address	No
13	Residence of Mother	No
14	Religion of family	Yes
15	Father's education	Yes
16	Mother's Education	Yes
17	Father's occupation	Yes
18	Mother's occupation	Yes
19	Age of Mother at the time of marriage	Yes
20	Age of Mother at the time of this Birth	Yes
21	No. of children born to this Mother so far (including this)	Yes
22	Type of attention at delivery	Yes
23	Method of Delivery	Yes
24	Birth weight (in KGs)	Yes
25	Duration of pregnancy	Yes

4.3.2. Aggregation of Death Report (Form -2)

Sl. No.	CRS Form 2 Fields	Field Required for Aggregation to CIRBD (Yes / No)
1	Date of Death	Yes
2	Name of the Deceased	No
3	Aadhaar of the Deceased	No
4	Sex of the Deceased	Yes
5	Name of the Mother	No

Sl. No.	CRS Form 2 Fields	Field Required for Aggregation to CIRBD (Yes / No)
6	Name of Father / Husband	No
7	Age of the Deceased	Yes
8	Address of the deceased at the time of Death	No
9	Permanent address of the deceased	No
10	Place of Death	Yes
11	Informant's Name	No
12	Informant's Address	No
13	Informant’s Aadhaar	No
14	Town or Village of Residence of the deceased: a) Name of Town/Village: b) Is it a town or village: c) Name of District: d) Name of State:	No
15	Religion	Yes
16	Occupation of the deceased	Yes
17	Type of medical attention received before death:	Yes
18	Was the cause of death medically certified?	Yes
19	Name of Disease or Actual Cause of Death	Yes
20	In case this is a female death, did the death occur while pregnant, at the time of delivery or within 6 weeks after the end of pregnancy	Yes
21	If used to habitually smoke – for how many years?	Yes
22	If used to habitually chew tobacco in any form	Yes
23	If used to habitually chew arecanut in any form (including pan masala) – for how many years?	Yes
24	If used to habitually drink alcohol – for how many years?	Yes

4.3.3. Aggregation of Still Birth Report (Form -3)

Sl. No.	CRS Form 3 Fields	Field Required for Aggregation to CIRBD (Yes / No)
1	Date of Birth	Yes

Sl. No.	CRS Form 3 Fields	Field Required for Aggregation to CIRBD (Yes / No)
2	Sex	No
3	Name of the Father	Yes
4	Father's Aadhaar	No
5	Name of the Mother	Yes
6	Mother's Aadhaar	No
7	Place of Birth	No
8	Informant's Name	No
9	Informant's Aadhaar	No
10	Informant's Address	No
11	Residence of Mother	No
12	Age of Mother at the time of this Birth	Yes
13	Mother's Education	Yes
14	Type of attention at delivery	Yes
15	Duration of pregnancy	Yes
16	Cause of foetal death	Yes

4.4. Key Features of SRS Application

Following are the key features of the SRS Application:

(i) It would be a Single integration application having option of Mobile and Web Application to be deployed centrally at ORGI

(ii) The mobile application (offline) would be provided to field users such as PTEs and Supervisors for data capture / validation.

(iii) Users

a. Users of Mobile Application will be PTE and Supervisor

b. Users of Web Application will be ORGI, DCO, Supervisor, PTE

(iv) **Functionality**

a. Functionality of Mobile Application will be data entry at source (by PTE and Supervisor) and then sharing the data with DCO.

b. Functionality of Web Application will be matching of data provided by PTE and Supervisor and sharing matched and verified data to ORGI in specified formats and at frequent intervals (as directed by ORGI). In case of mismatch DCO will allocate reverification request to Supervisor

(v) **Offline and Online feature for Mobile App**

a. Mobile Application will be able to operate both in Online Mode and Offline Mode.

b. PTEs and Supervisors will be able to use Mobile Application in Offline Mode for data entry

c. PTEs and Supervisors will be able to use Mobile Application in Online Mode for sharing with DCO the data that they have collected from Sample Units

(vi) **Integration of Mobile App and Web App**

a. For the ease of data sharing between different users of SRS, Mobile Application will be integrated with Web Application.

(vii) **Matching and Re-verification**

a. DCO will be able to view the data of PTE and Supervisor and use matching algorithm to find out if there is any mismatch in data

b. In case of any mismatch DCO will allocate reverification request to Supervisor

c. In case of complete match the data will be shared with ORGI

(viii) **Generation of customized Reports, Tables, Indicators, Charts for ORGI**

a. Various reports on birth estimates, death estimates, fertility, mortality and population composition will be generated as per ORGI's requirement

b. It will be able to generate the vital statistics as per the indicative list mentioned in Annexure 7

(ix) The detailed indicative functional requirements are provided in Annexure 5

4.5. SRS Forms and their flow

For collecting information on population and vital events various forms/schedules have been prescribed under the SRS. Depending upon various operations under the system, the following 17 types of forms are in use:

a. Baseline Survey Forms

Form 1: House List
Form 2: Household Schedule
Form 3: Pregnancy Status of women

b. Continuous Enumeration Forms

Form 4: Outcome of Pregnancy recorded by Enumerator (January-June/July-December)
Form 5: Deaths recorded by Enumerator (January-June/July-December)
Form 6: Monthly report of Outcome of Pregnancy
Form 7: Monthly report of Deaths

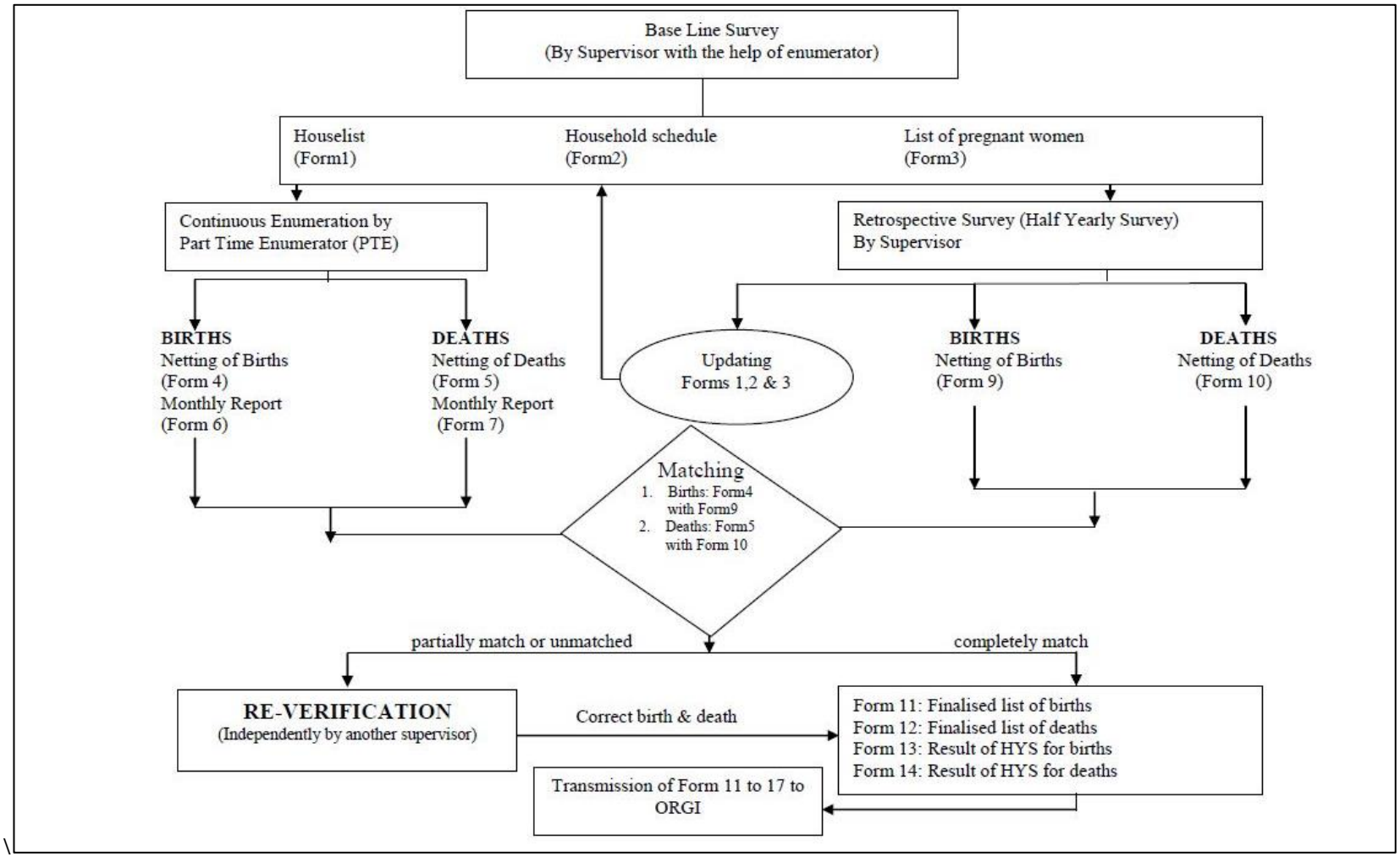
c. Half yearly Survey Forms

Form 9: Outcome of Pregnancy recorded by Supervisor (January-June/July-December)
Form 10: Deaths recorded by Supervisor (January-June/July-December)
Form 15: Distribution of usual resident population by age, sex and marital status (as on 1st July/1st January)
Form 16: Distribution of Female population by broad age groups and levels of education (as on 1st July/1st January)
Form 17: Number of females who got married by age at effective marriage (January-June/July-December)

d. Compilation/Tabulation Forms

Form 8: Consolidated monthly report on births and deaths
Form 11: Finalized list of Outcome of Pregnancy (January-June/July-December)
Form 12: Finalized list of Deaths (January-June/July-December)
Form 13: Results of the HYS for Outcome of Pregnancy (January-June/July-December)
Form 14: Results of the HYS for Deaths (January-June/July-December)

Flow Diagram for Processing of SRS forms



5. Project Scope and Deliverables

Please refer to Annexure 22 for details about this section

6. Pre-Qualification

6.1. Pre-qualification Process

a) The Bidders Pre-Qualification Proposal in the bid document will be evaluated as per the requirements specified in the RFP and adopting the pre-qualification criteria spelt out in this RFP. The Bidder is required to submit all required documentation in support of the pre-qualification criteria specified.

b) The Bidder shall meet all the mandatory compliance requirements. Failure in meeting the mandatory compliance requirements will result in disqualification of the Bidder.

c) All the bidders will be communicated of the results of evaluation of the pre-qualification bids.

d) The Technical bids of those bidders who qualify in the prequalification process only will be evaluated further against the Technical bid evaluation criteria specified in the RFP.

6.2. Pre-qualification Criteria for Selection of Application Development & Maintenance Agency

Sl. No.	Pre-Qualification criteria for ADMA	Supporting Documents to be Submitted
1	The Bidder should be: - registered in India under Companies Act 2013 / LLP Act 2008 and subsequent amendments thereto - registered under GST - operating in India for the last 5 (five) years	a) Pre-qualification Cover letter as per Annexure 9 b) Copy of Certificate of Incorporation or Certified copy of Partnership Deed. c) Copy of GST Registration certificate d) Copy of PAN and TAN
2	The Bidder should have positive net worth, as on the last date of latest audited financial year.	CA / Auditor Certificate or Certificate from Company Secretary
3	The Bidder should have an average annual turnover of INR 50 Crores from IT Services / Implementation over the last three financial years (2014-15, 2015-16 and 2016-17).	CA / Auditor Certificate or Certificate from Company Secretary
4	The Bidder must have strength of at least 100 IT Professionals in application development / system administration / database administration / IT Infrastructure experts / Helpdesk operations in its payroll as on 31-March-2018.	Certificate from HR head on the letter head
5	The Bidder should have experience of development & maintenance of web-based applications / web portals during last three Financial Years (2014-15, 2015-	Citation as per format in Annexure 10 with Copy of Work order / Contract mentioning the scope of work and Completion / Phase

Sl. No.	Pre-Qualification criteria for ADMA	Supporting Documents to be Submitted
	16, 2016-17 and till bid submission date) for PSU/Central Govt./State Govt.: a) One project with work order value of at least INR 3 Crores; or b) Two projects with work order value of at least INR 1.5 Crores each; or c) Three projects with work order value of at least INR 75 lakhs each	Completion certificate. Ongoing Work Orders which are in maintenance phase are permitted. *Note: The Work Order Value above refers to the Web Application in the Work Order which is mentioned distinctly and not the composite value of the Work Order.*
6	The Bidder should be CMMI Level 3 or above certified.	Valid CMMI certificate as on the date of bid submission
7	The Bidder Member should not be blacklisted by any PSU / Central Govt. / State Govt. in India at the time of submission of the bid.	Letter from authorized signatory on the letter head of Bidder regarding non-blacklisting as per Annexure 11
8	Earnest Money Deposit	To be submitted by the Bidder as per Bid Data Sheet

7. Technical Qualification

7.1. Technical Qualification process

a) ORGI will review the Technical bids of the short-listed bidders to determine whether the technical bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at ORGI's discretion.
b) Bidder will have to submit the following in addition to the requirements of the technical evaluation criteria:
    (i) Technical Bid Cover Letter as per Annexure 15
    (ii) Authorization from OEMs as per Annexure 12
    (iii) Proposed Bill of Material with Make and Model unpriced as per Annexure 8
    (iv) Compliance Sheet of all functional and non-functional requirements as provided in Annexure 4 and 5
    (v) Compliance Sheet of all components as per technical specifications mentioned in Annexure 8 and Section 3.
c) The bidders technical solutions proposed in the bid document will be evaluated as per the requirements specified in the RFP and technical evaluation framework as mentioned.
d) Each Technical Bid will be assigned a technical score out of a maximum of 100 marks. Only the bidders who get an aggregate Technical score of 70% or more will qualify for commercial evaluation stage. Failing to secure minimum marks shall lead to technical rejection of the Bid and Bidder.

7.2. Technical Evaluation Criteria

The Bidder's technical proposal will be evaluated as per the requirements specified in the RFP and adopting the following evaluation criteria:

Sl. No.	Evaluation Criteria	Criteria	Maximum Marks
1.	Experience of development & maintenance of web-based applications / web portals in PSU/Central Govt. /State Govt. in India during last three Financial Years (2014-15, 2015-16, 2016-17 and till bid submission date)	Citation as per format in Annexure 10 with Copy of Work order / Contract mentioning the scope of work and Completion / Phase Completion certificate. Ongoing Work Orders which are in maintenance phase are permitted. Each Project with Work Order Value of at least INR 3 Crores = 10 marks Each Project with Work Order Value of at least INR 1.5 Crores = 5 marks Each Project with Work Order Value of at least INR 75 Lakhs = 2.5 marks *Note: The Work Order Value above refers to the Web Application in the Work Order which is mentioned distinctly and not the composite value of the Work Order.*	20
2.	Experience of supply, installation, commissioning and maintenance of IT Infrastructure including servers, network, IT security components and system software in PSU/Central Govt. /State Govt. in India during last three Financial Years (2014-15, 2015-16, 2016-17 and till bid submission date)	Citation as per format in Annexure 10 with Copy of Work order / Contract mentioning the scope of work and Completion / Phase Completion certificate. Ongoing Work Orders which are in maintenance phase are permitted. <u>No. of Projects</u> Each Project with Work Order Value of at least INR 75 Lakhs = 5 marks Each Project with Work Order Value of at least INR 50 Lakhs = 2.5 marks Each Project with Work Order Value of at least INR 25 Lakhs = 2 marks *Note: The Work Order Value above refers to the IT infrastructure value in the Work Order which is mentioned distinctly*	10

Sl. No.	Evaluation Criteria	Criteria	Maximum Marks
		and not the composite value of the Work Order.	
3.	Technical Solution supplemented by Presentation and interactions (To be evaluated by a committee for awarding of marks after presentation)	i. Understanding of the scope of work (5 marks) ii. Technical Solution Proposed for CIRBD & SIRBD & SRS application (with same technology stack) (5 marks) iii. Proposed tools and OEM support (5 marks) iv. Approach for operations and maintenance of each Track (4 marks) v. Approach for coordination and handholding with states / DCOs (3 marks) vi. Work Plan (3 marks) vii. Resource Deployment Plan as per format provided in Annexure 17 (5 marks)	30
4.	Key Resources Proposed	Profile of key resources (as per Section 7.3.1) • Project Manager – 7 marks • Solution Architect – 7 marks • IT Infrastructure Architect – 5 marks • PHP Developers (2) – 4 marks (2 marks each) • Database Architect – 6 marks • Senior developers (2) – 6 marks (3 each) • UI / Web Designer – 2 marks • Analytics Expert – 3 marks The marks for key resources will be awarded based on the resources proposed for these positions.	40

7.3. Minimum Team Composition

7.3.1. Key Resources in Project Implementation Team

While bidders have to size their own team (bidders can propose other team members like android developer, tester, test lead, QA etc.) they will be evaluated on the following key profiles:

Sl. No.	Position	No. of Resources	Criteria Details
1.	Project Manager	1	• Education: Full Time MCA / MBA / B. Tech from a reputed institute • Total Experience: Should possess at least 10 years of experience in IT domain. • Should have more than 7 years of experience of handling such large projects as a project/program manager • Should have led a team of at least 20 people • Should have led at least one such project end to end i.e. from development to deployment to O&M phase
2.	Solution Architect	1	• Education: Full time MCA/B. Tech/B.E. from a reputed institute • Total Experience: At least 10 years in IT domain • Should have experience of more than 7 years as Solution Architect in large projects of similar nature • Should have designed at least three such large scale projects • Should possess Industry standard certifications
3.	IT Infrastructure Architect	1	• Education: Full time MCA/B. Tech/B.E. from a reputed institute • Total Experience: 10 years or above in IT infrastructure domain • Should have experience of leading at least three such large scale projects • At least 7 years of experience as Manager IT Infrastructure for at least 4 relevant projects involving Data Centre and DR • Should have OEM/Industry Standard certification
4.	Database Architect	1	• Education: Full time MCA/B. Tech/B.E. • Total Experience: At least 10 years in IT domain • Should have experience of more than 7 years in Database design in large projects of similar nature • Experienced in database activities like instance tuning, schema management,

Sl. No.	Position	No. of Resources	Criteria Details
			space management, backup and recovery, disaster recovery, data replication, database refresh etc. • Person needs to mandatorily have experience in Databases that are proposed for the project. • Should have OEM standard certification as applicable.
5.	Senior Developers	2	• Education: MCA/B. Tech/B.E. • Experience of at least 6 years in providing pre-production and production support of applications and troubleshooting. • Should have good understanding of application developed on proposed technology stack
6.	UI / Web Designer	1	• Graduate in Science/ B. Tech / MCA • Minimum relevant experience of 5 years • Up to date knowledge of design software on Adobe Illustrator and Photoshop • Proficiency in HTML, CSS and JavaScript for rapid prototyping
7.	Analytics Expert	1	• Education: Full time MCA/B. Tech/BE • Total Experience: At least 5 years in Analytics domain • Should have experience of more than 5 years in Data Analytics domain •
8.	PHP Developers	2	• Education: MCA/B. Tech/B.E. • Experience of at least 3 years in providing pre-production and production support of PHP applications and troubleshooting. Should have good understanding of Symfony PHP platform •

7.3.2. Resources in Operations & Maintenance Team

Sl. No.	Position	No. of Resources	Criteria Details
1.	Project Manager	1	• Education: Full Time MCA / B. Tech from a reputed institute • Total Experience: Should possess at least 10 years of experience in IT domain. • Should have more than 7 years of experience of handling such large projects as a project/program manager • Should possess Project Management

Sl. No.	Position	No. of Resources	Criteria Details
			certification like PMP or Prince2. • Should have led a team of 20+ people • Should have led at least one such project end to end i.e. from development to deployment to O&M phase
2.	Database Administrator	1	• Education: B. Tech / B.E. • Experience: Minimum 5 years of experience in storage and management of electronic data software • Should have experience in database management systems software, determining effective storage methods while managing tasks involved in database environment • Excellent problem solving abilities and detail orientation • Should be able to setup Test, Dev, Staging and Production Environments • Should have knowledge in scripting languages • Should have knowledge in Failover Clustering, Always-On Availability, and Replication etc. • Should have knowledge in managing Reporting Services, Analysis Services, Integration Services
3.	Application Developer	3	• Education: MCA/M. Tech/B. Tech/B.E. • Experience of at least 3 years in providing pre-production and production support of applications and trouble shooting. • Should have good understanding of application developed on proposed technology stack • Should have multi browser coding and testing
4.	Application Developer (Senior)	2	• Education: MCA/B. Tech/B.E. • Experience of at least 6 years in providing pre-production and production support of applications and trouble shooting. • Should have good understanding of application developed on proposed technology stack • Should have multi browser coding and testing
5.	System Administrator	1	• Education: M.Sc. in Information Technology, Computer Science or a related discipline/B. Tech/MCA • Minimum relevant experience of 5 years • Install and configure software and

Sl. No.	Position	No. of Resources	Criteria Details
			hardware • Manage network servers and technology tools • Set up accounts and workstations • Monitor performance and maintain systems according to requirements • Troubleshoot issues and outages • Ensure security through access controls, backups and firewalls • Upgrade systems with new releases and models • Develop expertise to train staff on new technologies
6.	UI / Web Designer	1	• Education: Post Graduate in Computer Science /B. Tech/MCA • Minimum relevant experience of 5 years • Gather and evaluate user requirements in collaboration with business users and engineers • Illustrate design ideas using storyboards, process flows and sitemaps • Design graphical user interface elements, like menus, tabs and widgets • Build page navigation buttons and search fields • Develop UI mock-ups and prototypes that clearly illustrate how sites function and look like • Create original graphic designs (e.g. images, sketches and tables) • Identify and troubleshoot UX problems (e.g. responsiveness) • Conduct layout adjustments based on user feedback • Adhere to style standards on fonts, colours and images • Knowledge of wireframe tools • Up to date knowledge of design software on Adobe Illustrator and Photoshop • Proficiency in HTML, CSS and JavaScript for rapid prototyping
7.	Android Developer	1	• Education: Graduate in Computer Science/B. Tech/MCA • At least 3 years' experience in mobile application development in Android and testing • Have experience in designing and building advanced Android applications • Have strong technical and coding expertise on Android Mobile Platform to test code for robustness, including edge cases, usability, and general reliability.

Sl. No.	Position	No. of Resources	Criteria Details
			• Experience in bug fixing and improving application performance and continuously discovering, evaluating, and implementing new technologies to maximize development efficiency.

The Bidder is required to propose the Project Team for implementation phase (till Go Live) of the project along with their CV's. The format in which the CV's are required to be shared is placed in Annexure 16.

Note:

(i) The Bidder is required to provide the detailed deployment plan of the resources in the technical bid.

(ii) The resources shall be deployed onsite as per the resource deployment plan submitted by the bidder.

(iii) The bidder shall provide the size of the team with role of team members for each Track of the project for Implementation Phase. Bidder cannot change team size for O&M Phase (Refer Table G of Commercial Bid).

(iv) The resource mentioned above is minimum and the bidder may propose more resources in the commercial bid for the Implementation Phase (Refer Table D of Commercial Bid).

(v) ORGI would decide on team composition during O & M phase

(vi) However, ORGI at its request may seek more resources at the same person month rate quoted for activities beyond the scope of this RFP.

(vii) ORGI may take interview of the resources before deployment

8. Instructions to the Bidders

8.1. Eligible Bidders

Consortium is not allowed to participate in this tender process. The bidders shall not have a conflict of interest that affects the Bidding Process. Any Bidder found to have conflict of interest shall be disqualified. The bidders who meet the pre-qualification criteria mentioned in Section 6.2 are eligible to participate in this selection process.

The Selected Bidder shall be responsible for meeting all obligations for the delivery of products and services mentioned in this RFP. The Selected Bidder would also be responsible for ensuring the successful execution of proposed solution including meeting the SLAs.

8.2. Proposal Preparation Cost

The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by ORGI to facilitate the evaluation process, and in negotiating a definitive Contract or all such activities related to the bid process. ORGI will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. This Bid Document does not commit to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award. All materials submitted by the Bidder shall become the property of ORGI and may be returned at its sole discretion.

8.3. Earnest Money Deposit (EMD) and Refund

i. Bidders shall submit, along with their Bids, EMD of INR 15, 00,000/- (Indian Rupees Fifteen Lakhs only) in form of Demand Draft or Bank Guarantee from a Nationalized/Scheduled Bank. The validity of the EMD shall be for a period of 90 days from the date of submission of the bid and the validity of the EMD should be extended in the event the last date of submission of the bid is extended. The Bidder shall mark its name and RFP reference number on the reverse of the Demand Draft.
ii. The Bidders are required to submit original EMD in a sealed envelope.
iii. In case bid is submitted without EMD then ORGI reserves the right to reject the bid without providing opportunity for any further correspondence to the concerned Bidder.
iv. EMDs of all unsuccessful bidders will be returned at the earliest after expiry of the final bid validity.
v. The EMD of the successful Bidders will be returned, without interest, upon submission of Performance Bank Guarantee (of the amount and in the format as specified in this RFP) by the successful Bidder.
vi. The EMD may be forfeited:
    - If a Bidder withdraws the proposal or increases the quoted prices after opening of the bid and during the period of Bid validity period or its extended period, if any.
    - In case of a successful Bidder, if the Bidder fails to sign the Agreement in accordance with the terms and conditions (including timelines for execution of the Agreement) of this RFP or fails to furnish the Performance Bank Guarantee in accordance with the terms and conditions (including timelines for furnishing PBG) of this RFP.

- During the Bid process, if a Bidder indulges in any act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization

vii. The decision of ORGI regarding forfeiture of the EMD shall be final and binding on the Bidders & shall not be called upon in question under any circumstances

8.4. Pre-Bid Meeting

8.4.1. Bidders queries

Any clarification regarding the RFP document and any other item related to this project can be submitted to ORGI as per the submission mode and timelines mentioned in the Bid Data Sheet. The pre-bid queries should be submitted in the format as mentioned in Annexure 14 of the RFP, along with name and details of the Bidder submitting the queries. Any requests for clarifications received after the expiry of the date and time mentioned in the Bid Data Sheet may not be entertained by ORGI. Further, ORGI shall reserve the right to issue responses / clarifications/ corrigendum.

8.4.2. Responses to Pre-Bid Queries and Issue of Corrigendum

ORGI will organize a pre-Bid Conference as mentioned in the Data Sheet above and may respond to any request for clarifications on, and/or modifications of this RFP. It may formally respond to the pre-Bid queries after the pre-Bid Conference as mentioned in the Bid Data Sheet.

Only persons, duly authorized by the Bidder, will be allowed to participate in the pre-bid meeting. The authorized representatives should carry a valid proof of identification for verification before the commencement of the pre-Bid Conference. Also, no separate conferences, will be conducted for any organization at date later than the dates for the above events.

ORGI will endeavour to provide timely response to all the queries. However, ORGI makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does it undertake to answer all the queries that have been posed by the Bidders. Any modifications of this RFP, which may be necessary as a result of the Pre-Bid Conference or for any other reason, shall be made available by ORGI exclusively through a corrigendum. Any such corrigendum shall be deemed to be incorporated into this RFP. However, in case of any such amendment of the RFP, the Bid submission date may be extended by ORGI in the sole discretion of ORGI.

All clarifications and any other corrigendum / notification issued by ORGI subsequent to the issuance of this RFP, shall be available in the websites mentioned in the Bid Data Sheet.

8.5. Amendment of RFP Document

At any time prior to the deadline for submission of bids, the Department, may, for any reason can modify the RFP Document by an amendment. All the amendments made in the document would be displayed on ORGI's and CPPP website. The Bidders are advised to visit these websites on regular basis for checking necessary updates. ORGI also reserves the rights to amend the dates mentioned in this Bid Document for bid process. ORGI may, at its discretion, extend the last date for the receipt of Bids.

8.6. Bid Validity period

a) Bid shall remain valid for the time mentioned in the Bid Data Sheet.

b) ORGI may request the Bidder(s) for an extension of the period of validity. The validity of the EMDs as requested in Section 8.4 should also be suitably extended if called upon to do so by ORGI. The request and the responses thereto shall be made in writing or e-mail.

8.7. Rights to Terminate the Process

ORGI may terminate the RFP at any time and without assigning any reason. ORGI makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by ORGI. The Bidders participation in this process may result in ORGI selecting the Bidder to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by ORGI to execute a contract or to continue negotiations. ORGI may terminate negotiations at any time without assigning any reason.

8.8. Language of Bids

The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and ORGI, shall be written in English language, provided that any printed literature furnished by the Bidder in another language shall be accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidder.

8.9. Documents Comprising of Bids

Bidder shall furnish the required information in their Pre-Qualification, Technical and Commercial bids in specified formats only along with required annexures. Any deviations in format may make their bids liable for rejection. Disclosure of Commercial information of the bid, in any form, in Pre-Qualification or Technical part shall be sufficient grounds for rejection of the bid.

Type of Bid	Requirement
Pre-qualification Bid	a) EMD b) Power of Attorney as per Annexure 21 c) Compliance sheet as per Pre-qualification criteria in Section 6.2 d) Supporting documents as per Pre-qualification criteria in Section 6.2 e) Annexures 9, 10, 11, 13
Technical Bid	a) Compliance sheet as per Technical Evaluation criteria in Section 7.2 b) Supporting documents as per Technical Evaluation Criteria in Section 7.2 c) Compliances as per Section 3, Annexures 4, 5 and 8 d) Annexures 15, 12, 10, 16, 17
Commercial Bid	a) Annexure 19, 20

8.10. Submissions of Bids

The e-tender is invited under three bid system i.e. Pre-qualification, Technical Bid and Commercial Bid. The interested firms are advised to submit their bids "by visiting the Govt. of India, Central Public e-Procurement (CPP) Portal i.e. https://eprocure.gov.in. The bids will be accepted as e-tender only i.e. the tenderers will submit their bids on the c-Procurement Portal (module of NIC), in an encrypted format. Possession of valid Digital Signature Certificate (DSC), valid e-mail address and registration of the firm on the Government of India, Central Public e-Procurement (CPP) Portal i.e. https://eprocure.gov.in are pre-requisite for e-tendering. Vendors / Bidders are advised to read the following instructions for participating in the electronic tenders directly through internet.

a) Late and delayed Bids / Offers after due date and time shall not be permitted in e-Tendering system. No bid can be submitted after the last date and time of submission is over. (However if bidder intends to revise the bid already submitted, they may change and revise the same on or before the last date and time of submission of bid). The system time (IST) that will be displayed on e-tendering web page shall be the time and no other time shall be taken into cognizance.
b) Bidders are advised in their own interest to ensure that bids are uploaded in e-tendering system well before the closing date and time of bid.
c) No bid can be modified after the deadline for submission of bids. No manual bids / offers along with electronic bids/ offers shall be permitted. Bidders must submit online offers by the date and time mentioned in the Notice Inviting Tender (NIT) at the website address stated therein.
d) Each E-Tender will provide access to Technical as well as Commercial part of the tender. Along with the Commercial part, Bidders can attach the required documents with the bid in line with the Tender.
e) The successful bid submission can be ascertained once acknowledgement is given by the system through bid submission number after completing all the process and steps.
f) The bid has to be submitted online only. However EMD has to be submitted offline. Prices should not be submitted offline. ORGI shall not be responsible in any way for failure on the part of the bidder to follow the instructions. Physical Bids will not be accepted. All such physical Bids shall be considered as invalid offers and shall be rejected summarily without any consideration.
g) Price Bid shall contain only price as per Schedule of Rates (in form of an excel sheet) without any condition. The lump sum rate along with tax and other components shall be filled up in figures and the total amount shall be automatically calculated and rounded off to the nearest rupee. It is to be noted that the Price Bid shall contain only PRICES and no conditions whatsoever. The bid shall be uploaded through Digital signatures by someone legally authorized to enter into commitment on behalf of the Bidder. Bidder shall upload among other documents, Power of Attorney in favour of the person who is authorized to enter into commitments on behalf of the Bidder.
h) It is advised that the bidder upload small sized documents (preferably upto 5 MB) at a time to facilitate in easy uploading into e-tendering site. ORGI does not take any responsibility in case of failure of the bidder to upload the documents within specified time of tender submission.

8.11. Modification or Withdrawal of Bids

The Bidder may modify or withdraw its bid after submission, prior to the deadline-date and time prescribed for bid submission. Bidder wishing to withdraw its bid shall withdraw the bid as per the process mentioned in CPPP website. Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a validly submitted bid. No bid may be withdrawn

in the interval between the bid submission deadline and the expiration of the bid validity period. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder's EMD.

8.12. Evaluation Process

ORGI shall evaluate the responses to this RFP and scrutinize the supporting documents / documentary evidence. Inability to submit the requisite supporting documents / documentary evidence, may lead to rejection. The decision of ORGI in the evaluation of proposals shall be final. No correspondence will be entertained outside the process of evaluation with ORGI. ORGI may ask for meetings with the Bidders to seek clarifications or conformations on their proposals. During the Proposal Evaluation, ORGI reserves the right to reject any or all the Proposals. Each of the responses/ Proposals shall be evaluated as per the criteria and requirements specified in this RFP.

The steps for evaluation are as follows:

8.12.1. Stage 1 – Pre-qualification

a) Bidders are required to submit the Pre-Qualification documents along with the required supporting documents in the format specified in the RFP.

b) The Bidders Pre-Qualification Proposal in the bid document will be evaluated as per the requirements specified in the RFP and adopting the pre-qualification criteria spelt out in this RFP. The Bidder is required to submit all required documentation in support of the pre-qualification criteria specified.

c) The Bidder shall meet all the mandatory compliance requirements. Failure in meeting the mandatory compliance requirements will result in disqualification of the Bidder.

d) All the bidders will be communicated of the results of evaluation of the prequalification bids.

e) If Commercials are provided along with the Pre-Qualification Bid, the bid would be summarily be rejected and EMD will be forfeited.

f) The Technical bids of those bidders who qualify in the prequalification process only will be evaluated further against the Technical bid evaluation criteria specified in the RFP.

8.12.2. Stage 2 – Technical Evaluation

a) The Technical Bids and related supporting documents shall be submitted along with the required supporting documents in the format specified in the RFP. The Technical Bids of only those Bidders will be opened who have qualified the Pre-Qualification stage.

b) ORGI will review the Technical bids of the short-listed bidders to determine whether the technical bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at ORGI's discretion.

c) The bidders technical solutions proposed in the bid document will be evaluated as per the requirements specified in the RFP and technical evaluation framework as mentioned in Section 7.

d) Bidders are required to provide masked commercials in the Technical Bid. If Commercials are provided along with the Technical Bid, the bid would be summarily be rejected and EMD will be forfeited.

8.12.3. Stage 3 – Commercial Evaluation

The Commercial Bid will only be opened and evaluated for only those Bidders who have qualified the Technical evaluation stage.

a) The bidder must share per unit pricing for each of the components listed in Annexure 20 and also a firm lump sum price of the entire proposal as per the format provided. The rates quoted for the Human Resources are to be specified in "Per-Person-Per Month" basis. Any tools/software used during the project and support must be clearly mentioned in the bid.

b) The commercial bids of only technically successful Bidder(s) whose bids have been awarded 70 marks or more in aggregate by the Committee will be opened. Failing to secure minimum marks shall lead to technical rejection of the Bid and Bidder.

c) The evaluation will be carried out if Commercial bids are complete and computationally correct. Lowest Commercial proposal will be allotted a Commercial score of 100 marks.

d) The bidder with the Highest Technical Marks will be awarded 100 marks and others bidders will be awarded on percentile basis (e.g.) if the highest technical Marks is 90, the T1 bidder will get (TM) 100 marks. A bidder awarded 80 marks will get (80/90) x 100=88.88 Marks.

e) The Commercial Marks of other Bidder(s) will be computed by measuring the respective Commercial bids against the lowest proposal as follows:

CM = 100 x Lowest Commercial Bid Value / Commercial Bid Value of the Bidder under consideration.

f) The final selection of the Bidder will be based on QCBS evaluation methodology as detailed in next section.

8.12.4. Stage 4 – Final Score calculation through Quality & Cost based Selection (QCBS)

g) In the QCBS method of selection of Bidder, the lowest evaluated Commercial Bid (L1) will be given the maximum commercial marks (CM) of 100 points.

h) The composite mark is a weighted average of the Technical and Commercial marks. The ratio of weightage of Technical and Commercial marks is 75:25 respectively.

i) The composite (T1 – L1) marks will be derived using the following formula: TM x 0.75 + CM x 0.25.

j) Proposals will be ranked according to their combined technical (TM) and commercial (CM) marks using the weightages.

k) ORGI will award the Contract to the successful Bidder whose bid has been determined to be technically qualified and achieving the highest combined technical and financial score. ORGI will however not bind itself to accept the lowest evaluated bid or any bid and reserves the right to accept or reject any bid.

8.13. Rights to Accept/Reject any or all Proposals

ORGI reserves the right to accept or reject any proposal, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidders or any obligation to inform the affected Bidders of the grounds for ORGI's action.

8.14. Notifications of Award and Signing of Contract

Prior to the expiration of the period of proposal validity, the Bidder will be notified in writing or by email that its proposal has been accepted. ADMA shall within 7 days of receipt of the notification provide its acceptance thereof. ADMA shall submit the Performance Bank Guarantee to ORGI in the format provided in Annexure 18 within 15 days of issue of the notification. ORGI shall facilitate signing of the contract after receiving the PBG.

However, it is to be noted that the date of commencement of the project and all contractual obligations shall commence from the date of issuance of Purchase Order/Letter of Award, whichever is earlier. All reference timelines as regards the execution of the project and the payments to the Bidder shall be considered as beginning from the date of issuance of the Purchase Order/Letter of Award, whichever is earlier. The notification of award (Purchase Order/LOA) will constitute the formation of the Contract. Upon the Bidder executing the contract with ORGI, it will promptly notify each unsuccessful Bidder and return their EMDs. After issuance of Purchase Order/LOA ADMA shall sign the Contract as per the terms and conditions mentioned in Section 9.

8.15. Failure to agree with the Terms & Conditions of the Bid Document/Contract

Failure of the Bidder to agree with the Terms & Conditions of the Bid Document/Contract shall constitute sufficient grounds for the annulment of the award of contract and seizure of EMD amount. The contract may be awarded to the next most responsive bid of other Bidder.

8.16. Terms and Conditions of the RFP

Bidder is required to refer to the terms and conditions, at Section 9 in this RFP Document, for all the terms and conditions (including project timelines) to be adhered by the successful Bidder during Project Implementation and Post implementation period.

9. Terms and Conditions of the Contract

9.1. Definitions, Interpretations and Other Terms

i. ***ADMA or the Service Provider*** means the Application Development and Maintenance Agency /Bidder with whom the contract is signed or work order is issued by ORGI to provide the products and services as per the terms and conditions of this RFP.

ii. ***Bid*** means the tender process conducted by ORGI and the technical and commercial proposals submitted by the successful bidder, along with the subsequent clarifications and undertakings, if any;

iii. ***Confidential Information*** includes, without limitation, all information and materials, furnished by ORGI to ADMA in connection with corporates/citizen/users/persons/customers data, products and/or services, including information transmitted in writing, orally, visually, (e.g. video terminal display) or on magnetic or optical media, and including all proprietary information, customer & prospect lists, trade secrets, trade names or proposed trade names, methods and procedures of operation, commercial or marketing plans, licensed document know-how, ideas, concepts, designs, drawings, flow charts, diagrams, quality manuals, checklists, guidelines, processes, formulae, source code materials, specifications, programs, software packages, codes and other intellectual property relating to the ORGI's data, computer database, products and/or services. Confidential Information shall also include results of any tests, sample surveys, analytics, data mining exercises or usages etc. carried out by ADMA in connection with ORGI's or any government department's information including citizen/users/persons/customers personal or sensitive personal information as defined under any law for the time being in force;

iv. ***Control*** means, in relation to any business entity, the power of a person to secure:

(i) by means of the holding of shares or the possession of voting power in or in relation to that or any other business entity, or

(ii) by virtue of any powers conferred by the articles of association or other document regulating that or any other business entity, that the affairs of the first mentioned business entity are conducted in accordance with that person's wishes and in relation to a partnership, means the right to a share of more than one half of the assets, or of more than one half of the income, of the partnership;

v. ***Deliverables*** means all the activities related to the CIRBD & SIRBD and other service provisioning, as defined in the Bid Document & subsequent Corrigendum (if any), based on which the technical proposal & commercial proposal was submitted by the Bidder and as required as per this CA;

vi. ***Effective Date*** means the date on which the Purchase Order or the Letter of award is issued or Contract is signed with the Selected Bidder, whichever is earlier;

vii. ***CA/Agreement/Contract*** means the Contract Agreement, together with the recitals and all schedules and the contents, requirements, specifications and standards of the Bid Document (as may be amended, supplemented or modified in accordance with the provisions hereof) and the Bid.

viii. **Go-Live** for Track-2 would be the day when final acceptance of CIRBD and all states using existing Central CRS application and one selected Model 2 state have been integrated in to the CIRBD.

Go-Live for Track-3 would be the day when final acceptance of SRS application including mobile application have been completed.

ix. In the event of a conflict between this CA and the Schedules, the terms of the CA shall prevail with overriding effect;

x. Intellectual Property Rights means all rights in written designs and copyrights, moral rights, rights in databases and Bespoke Software / Pre-existing work including its up-gradation systems and compilation rights (whether or not any of these are registered and including application for registration);

xi. ***Performance Security/Performance Bank Guarantee/PBG*** means the irrevocable and unconditional Bank Guarantee provided by the Service provider from any Nationalized/Scheduled bank in favour of PAO Census, MHA payable at New Delhi for an amount equivalent to 10% of the Work Order;

xii. ***Proprietary Information*** means processes, methodologies and technical and business information, including drawings, designs, formulae, flow charts, data and computer programs already owned/licensed by either Party or granted by third parties to a Party hereto prior/ subsequent to the execution of the contract;

xiii. ***RFP or Bid Document*** means the means the Request for Proposal/ Tender Document released vide No. 2/31/2018-VS(CRS) and include all clarifications/addendums, explanations and amendments issued by ORGI in respect thereof;

xiv. Goods means to include all hardware, equipment, instruments, machinery, material, electronic items, networking equipment, switches, routers, cables and other tangible goods/items etc., and includes their user manuals, technical manuals, operating manuals, service mechanisms, policies and guidelines (such as security related, data migration related) and all its modifications, provided or to be provided by ADMA to ORGI under the RFP;

xv. Software means the software designed, developed / customized, tested and deployed by the ADMA for the purposes of the Project and includes the source code (in case of Bespoke development) along with associated documentation, which is the work product of the development efforts involved in the Project and the improvements and enhancements effected during the term of the Project;

xvi. ***Services*** means the content and services delivered and to be delivered to the customers or the offices of ORGI by ADMA, and includes but not limited to the services specified in the Bid Document or as may be specified and incorporated in the subsequent Agreement/s under Contract Agreement.

xvii. Service Level means the level of services and other performance criteria which will apply to the Services delivered by ADMA and as described in this RFP.

xviii. ***Users*** means the departmental staffs or any other ORGI officials having access to ORGI Application Landscape including its Implementation Agencies, technology vendors, corporations and agencies and their employees, as the context admits or requires.

xix. Total Value of Project/Total Project Value means the amount quoted by ADMA (inclusive of taxes) in its commercial bid for the entire Term of the Agreement. If the Total Value of the Project is increased due to change request, increase in tax rates/tax laws etc. in accordance with the terms of the Agreement, then ORGI shall have the right to seek additional Performance Security to such increased extent of Total Value of the Project and the penalties/liquidated damages etc.

getting affected by such increase would be calculated based on such increase from the effective date of such increase in the Total Value of the Project.

xx. Warranty Period shall mean the period starting from the date of successful completion /Go-live and extending till the expiry of the Term

9.2. Interpretations

i. References to any statute or statutory provision include a reference to that statute or statutory provision as from time to time amended, extended, re-enacted or consolidated and to all statutory instruments made pursuant to it;

ii. Words denoting the singular shall include the plural and vice-versa and words denoting persons shall include firms and corporations and vice versa;

iii. Unless otherwise expressly stated, the words "herein", "hereof", "hereunder" and similar words refer to this CA as a whole and not to any particular Article, Schedule. The term Articles, refers to Articles of this CA. The words "include" and "including" shall not be construed as terms of limitation. The words "day" and "month" mean "calendar day" and "calendar month" unless otherwise stated. The words "writing" and "written" mean "in documented form", whether electronic or hard copy, unless otherwise stated;

iv. The headings and use of bold type in this CA are for convenience only and shall not affect the interpretation of any provision of this CA;

v. The Schedules to this CA form an integral part of this CA and will be in full force and effect as though they were expressly set out in the body of this CA;

vi. Reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to such agreement, deed, instrument, license or other document as the same may be amended, varied, supplemented, modified or suspended at the time of such reference;

vii. Any word or expression used in this CA shall, unless defined or construed in this CA, bear its ordinary English language meaning;

viii. The damages payable by a Party to the other Party as set forth in this CA, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and liquidated damages likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalties;

ix. This CA shall operate as a legally binding agreement specifying the master terms, which apply to the Parties under the Agreement and to the provision of the services by the Service Provider;

x. ORGI may nominate a technically competent agency or Project Management Unit (PMU) for conducting acceptance testing and certification of the various requisite infrastructure to ensure a smooth, trouble free and efficient functioning of the project or carry out these tasks itself;

xi. The PMU nominated by ORGI can engage professional organizations for conducting specific tests on the software, hardware, networking, security and all other aspects;

xii. The PMU will establish appropriate processes for notifying ADMA of any deviations from the norms, standards or guidelines at the earliest instance after taking cognizance of the same to enable the Service Provider to take corrective action;

xiii. Such an involvement of and guidance by the agency/person will not, however, absolve ADMA of the fundamental responsibility of designing, installing, testing and commissioning the application & the infrastructure for efficient and effective delivery of services as contemplated under this Bid Document.

xiv. The documents forming the Agreement are to be taken as mutually explanatory of one another. The following order shall govern the priority of documents constituting the Agreement, in the event of a conflict between various documents, the documents shall have priority in the following order:

- The Agreement;
- RFP document of ORGI for this work
- Clarification & Corrigendum Documents published by ORGI subsequent to the Bid Document for this work
- Letter of Award/Purchase Order issued by ORGI to the successful Bidder and
- Successful Bidder "Technical Proposal" and "Commercial Proposal" submitted in response to the Bid Document as accepted by ORGI.

9.3. Duration of the Contract Agreement

i. The term of this Contract Agreement (CA) shall be a period of 3 years from the date of issuance of Letter of Award/ Purchase Order or signing of contract whichever is earlier("Term")

ii. The OEM for the supplied hardware and software will be provided throughout the Term of the contract commencing from the date of installation & commissioning of the IT infrastructure In the event of implementation period getting extended beyond the stipulated time, for reasons not attributable to the Bidder, ORGI reserves the right to extend the Initial Term of the Agreement by corresponding period to allow validity of contract from the date of operational acceptance.

9.4. Project Timelines

9.4.1. Track – 1

Sl. No.	Milestone	Timeline
1.	Maintenance of Existing CRS application	From Day 1 of effective date

9.4.2. Track – 2

Sl. No.	Milestone	Timeline
1.	Development, testing and deployment of CIRBD portal	2 months from effective date

Sl. No.	Milestone	Timeline
2.	Conduct Security Audit of CIRBD portal through Cert-In empanelled vendor and obtain GIGW Compliance Certificate	3 months from effective date
3.	Development, testing, deployment and security Audit of SIRBD State Level data consolidation module	3 months from effective date
4.	Technical Documentation, Training and User Manual of CIRBD & SIRBD	3.5 months from effective date
5.	Integration of all States using Existing CRS application with CIRBD portal	4 months from effective date
6.	Integration of One Model 2 State with CIRBD portal	4 months from effective date
7.	Development and testing of SIRBD Registration module including Mobile Application, CIRBD Application Go-Live	5 months from effective date
8.	Conduct Security Audit of SIRBD portal through Cert-In empanelled vendor	5 months from effective date
9.	Operations & Maintenance of CIRBD portal and integration with other states in phase-wise manner	After Go-live (Sl No. 7)

9.4.3. Track – 3

Sl. No.	Milestone	Timeline
1.	Development and testing of SRS Application	3 months from effective date
2.	Development and testing of Mobile Application	4 months from effective date
3.	Conduct Security Audit of SRS and Mobile application through Cert-In empanelled vendor	4.5 months from effective date
4.	SRS Application Go-live	5 months from effective date
5.	Operations & Maintenance of SRS Application & Mobile App	After Go-live (Sl No. 4)

Go-Live of the project would be declared when the Go-Live for both Track 2 and Track 3 is completed by ADMA and accepted by ORGI.

9.5. Obligations under the Service Level Agreements

ADMA shall accomplish the scope of work under the RFP as per the Timelines and as per the Service Level Agreements. If ADMA fails to achieve the Timelines due to reasons attributable to it, or if it fails to achieve the Service Levels (in the SLAs) for any reason whatsoever, ADMA shall be liable to pay liquidated damages as detailed in the RFP. In case ADMA is not solely liable for the breach of Timelines, amount of liquidated damages shall be deducted on proportionate / pro rata basis depending upon ADMA's extent of fault in such breach of Timelines. ORGI shall have the right to determine such extent of fault and

liquidated damages in consultation with ADMA. Payment of liquidated damages shall not be the sole and exclusive remedies available to ORGI and ADMA shall not be relieved from any obligations by virtue of payment of such liquidated damages. The liquidated damages under the RFP and the pursuant Agreement for delay in implementation is limited to 10% of the Work Order Value for each Track-2 and Track-3 respectively (excluding Work Order Value for AMC & Operations & Maintenance).

The SLA for CIRBD and SRS application shall be calculated individually on quarterly basis. The maximum penalty for operations & management of these application is capped to 10% of their respective O&M value in the Work Order.

If the liquidated damages cross the cap on liquidated damages mentioned in herein in this Clause, ORGI shall have the right to terminate the Agreement for breach and consequences for such termination as provided in the Agreement shall be applicable.

9.6. Change of Control

i. In the event of a Change of Control of ADMA during the Term, ADMA shall promptly notify ORGI of the same in the format set out in the RFP which is appended as Schedule I.

ii. In the event that the net worth of the surviving entity is less than that of ADMA prior to the Change of Control, ORGI may within 30 days of becoming aware of such change in control, require a replacement of existing Performance Security (with same or higher value) furnished by ADMA from a guarantor acceptable to ORGI (which may or may not be ADMA or any of its associated entities).

iii. If such a guarantee is not furnished within 30 days of ORGI requiring the replacement, ORGI may exercise its right to terminate the Agreement within a further 30 days by written notice, to become effective as specified in such notice.

iv. Pursuant to termination, the effects of termination as set out in the Agreement shall follow.

For the avoidance of doubt, it is expressly clarified that the internal reorganization of ADMA shall not be deemed an event of a change of control for purposes of this Clause unless the surviving entity is of less net worth than the predecessor entity.

9.7. Payment Terms

The payment to ADMA shall be made in the following manner:

9.7.1. Track – 1

Sl. No.	Milestone	Payment of IT Hardware & Software	Payment of Application Development
1.	Maintenance of CRS application (PHP Developers)		Quarterly basis from the effective date in arrears (Table-F of Commercial bid)

9.7.2. Track – 2

Sl. No.	Milestone	Payment of IT Hardware & Software	Payment of Application Development
1.	Development, testing and deployment of CIRBD portal.	40% of the cost of Hardware & Software (X0 of Table A of Commercial bid)	30% of the Cost of Application development (Table-B of Commercial bid)
2.	Development, testing, deployment and security audit of SIRBD State Level data consolidation module.	10% of the cost of Hardware & Software (X0 of Table-A of Commercial bid)	5% of the Cost of Application development (Table-B of Commercial bid)
3.	Security Audit through Cert-In empanelled vendor and GIGW Compliance Certificate		100% of CIRBD & SIRBD Certification Cost (Table-E of Commercial bid)
4.	Integration of all existing CRS application States and one Model 2 State with CIRBD portal	30% of the cost of Hardware & Software (X0 of Table-A of Commercial bid)	25% of the Cost of Application development (Table-B of Commercial bid)
5.	Development and testing of SIRBD Registration module including Mobile application	20% of the cost of Hardware & Software (X0 of Table-A of Commercial bid)	40% of the Cost of Application development (Table-B of Commercial bid)
6.	Operations & Maintenance of CIRBD application	Quarterly basis in arrears after delivery and acceptance (X1 of Table A of Commercial bid)	Quarterly basis in arrears from Go-Live date (Table-G of Commercial bid)

9.7.3. Track – 3

Sl. No.	Milestone	Payment of IT Hardware & Software	Payment of Application Development
1.	Development and testing of SRS Application	NA	60% of the Cost of Application development (Table-C of Commercial bid)
2.	Development and testing of Mobile Application	NA	20% of the Cost of Application development (Table-C of Commercial bid)
3.	Conduct Security Audit of SRS and Mobile application	NA	100% of Certification Cost (Table-E of Commercial bid)

Sl. No.	Milestone	Payment of IT Hardware & Software	Payment of Application Development
	through Cert-In empanelled vendor		
4.	SRS Application Go-Live	NA	20% of the Cost of Application development (Table-C of Commercial bid)
5.	Operations & Maintenance of SRS application	NA	Quarterly basis in arrears from Go-Live date (Table-G of Commercial bid as applicable)

Notes:

(i) Adherence to timelines is critical for the success of the project.

(ii) If ADMA is liable for any penalty as per the SLA (refer to the related clause of the agreement), the same shall be adjusted from payments due to ADMA.

(iii) ORGI will release the payment within 45 days of submission of valid invoice subject to the condition that invoice and all supporting documents produced are in order and work is performed as per the scope of the project and meeting the SLA Criteria. ORGI shall be entitled to delay or withhold the payment of a disputed invoice or part of it delivered by ADMA, when ORGI disputes such invoice or part of it, provided that such dispute is bona fide.

(iv) Payment to ADMA will be subjected to meeting the requirements of the Service Level Agreement. ADMA has to submit invoices mentioning the milestones achieved and its details thereof.

(v) O&M for Track-2 and Track-3 will start as per its individual Go-Live date. ADMA has to deploy resources for these tracks to maintain the required SLA and these resources should not be working on any implementation track. ORGI reserves the right to increase or decrease the number of resources as per the O&M requirements which will be mutually agreed between ORGI and ADMA.

(vi) Payment shall be deducted for any shortfall of attendance of the resources deployed on pro-rata basis.

(vii) No payment made by ORGI herein shall be deemed to constitute acceptance by ORGI of the system or any service

(viii) A Central Project Management Unit (CPMU) will be constituted which will be responsible for monitoring the performance of ADMA and recommend for the payment.

(ix) All payments shall be made for the corresponding to the goods or services actually delivered, installed, or operationally accepted, per the Implementation Schedule, at unit prices and in the currencies specified in the Commercial Bids.

9.8. Service Level Agreements

i. The purpose of this Service Level Requirements/Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the Bidder to ORGI for the duration of the Agreement period of the Project.

ii. All the payments to the Bidder are linked to the compliance with the SLA metrics specified in this document.

iii. The SLA are proposed to be performance based. For purposes of SLA, the definitions and terms as specified along with the following terms shall have the meanings set forth below:

a. "Uptime" shall mean the time period for which the IT Infrastructure Solution along with specified services / components with specified technical and service standards are available for users in all in-scope Applications across ORGI application landscape. Uptime, in percentage, of any component (Non IT and IT) can be calculated as : Uptime = {1- [(System Downtime) / (Total Time – Planned Maintenance Time)]} * 100

b. "Downtime" shall mean the time period for which the IT Infrastructure Solution and/or specified services / components with specified technical and service standards are not available to users. This includes Servers, Routers, Firewall, Switches, all servers and any other IT and non-IT infrastructure, their subcomponents etc. at all Project locations etc. The planned maintenance time / scheduled downtime will include activities like software upgrades, patch management, security software installations etc.

c. The selected Bidder will be required to schedule 'planned maintenance time' with prior approval of ORGI. This will be planned outside working time. In exceptional circumstances, ORGI may allow ADMA to plan scheduled downtime in the working hours.

d. "Incident" refers to any event / abnormalities in the functioning of the IT Infrastructure solution and services that may lead to disruption in normal operations.

e. "Resolution Time" shall mean the time taken (after the incident has been reported at the helpdesk), in resolving (diagnosing, troubleshooting and fixing) or escalating (to the second level) getting the confirmatory details about the same from the bidder and conveying the same to the end user), the services related troubles during the first level escalation.

iv. Commencement of SLA: The SLA shall commence from Day 1 from the effective date. The penalty will be deducted from the pending payment of ADMA. The following penalties shall be applicable on not being able to meet the SLA requirements as mentioned below:

9.8.1. Track – 2

Sl. No.	Milestone	Requirements	Penalty
1.	Development, testing and deployment of CIRBD portal	2 months from effective date	0.5% of Application Development Cost of CIRBD and SIRBD (Table-B) for delay of each week or part thereof
2.	Conduct Security Audit of CIRBD portal through Cert-In empanelled vendor and obtain GIGW Compliance Certificate	3 months from effective date	0.5% of the respective certification cost which is as per Table-E for delay of each week or part thereof
3.	Development, testing, deployment and security audit of SIRBD Portal (excluding Registration module)	3 months from effective date	0.5% of Application Development Cost of CIRBD and SIRBD (Table-B) for delay of each week or part thereof

Sl. No.	Milestone	Requirements	Penalty
4.	Integration of all existing CRS Application States and One Model 2 State with CIRBD portal	4 months from effective date	0.5% of Application Development Cost of CIRBD and SIRBD (Table-B) for delay of each week or part thereof
5.	Development and testing of SIRBD Registration module including Mobile Application	5 months from effective date	0.5% of Application Development Cost of CIRBD and SIRBD (Table-B) for delay of each week or part thereof
6.	CIRBD Application Availability	Target of 99% uptime per quarter This would be effective when CIRBD has gone in O&M phase	≥ 99% - Nil < 99% and ≥ 98% = 0.5% of the Quarterly Payment of O&M value (Table-G) < 98% and ≥ 97% = 1% of the Quarterly Payment of O&M value (Table-G) < 97% = 2% of the Quarterly Payment of O&M value (Table-G)

9.8.2. Track – 3

Sl. No.	Milestone	Requirements	Penalty
1.	Development and testing of SRS Application	3 months from effective date	0.5% of Application Development Cost of SRS (Table-C) for delay of each week or part thereof
2.	Development and testing of Mobile Application	4 months from effective date	0.5% of Application Development Cost of SRS (Table-C) for delay of each week or part thereof
3.	Conduct Security Audit of SRS and Mobile application through Cert-In empanelled vendor	4.5 months from effective date	0.5% of the respective certification cost which is delayed as per Table-E for delay of each week or part thereof
4.	SRS Application Go-Live	5 months from effective date	0.5% of Application Development Cost of SRS (Table-C) for delay of each week or part thereof
5.	SRS Application Availability	Target of 99% uptime per quarter	≥ 99% - Nil

Sl. No.	Milestone	Requirements	Penalty
		This would be effective when SRS has gone in O&M phase	< 99% and ≥ 98% = 0.5% of the Quarterly Payment of O&M value (Table-G) < 98% and ≥ 97% = 1% of the Quarterly Payment of O&M value (Table-G) < 97% = 2% of the Quarterly Payment of O&M value (Table-G)

Note:

1. ADMA has to submit all the reports pertaining to SLA Review process within 7 working days after end of the quarter.
2. All the reports must be made available to ORGI, as and when the report is generated or as and when asked by the competent authority.
3. In case the issue is still unresolved, the arbitration procedures described in the Terms & Conditions section will be applicable.
4. The down time will be calculated on monthly basis. Non-adherence to any of the services as mentioned below will lead to penalty as per the SLA clause and will be used to calculate downtime. The downtime calculated shall not include the following
   a. Down time due to hardware/software and application which is owned by ORGI at their premises
   b. Negligence or other conduct of ORGI or its agents, including a failure or malfunction resulting from applications or services provided by ORGI or its vendors.
   c. Failure or malfunction of any equipment or services not provided by ADMA.
5. However, it is the responsibility/ onus of ADMA to prove that the outage is attributable to ORGI. ADMA shall obtain the proof authenticated by ORGI's official that the outage is attributable to ORGI.
6. The total deduction per quarter shall not exceed 20% of the total QP value
7. Two consecutive quarterly deductions amounting to more than 20% of the QPs on account of any reasons will be deemed to be an event of default and will entail termination
8. It is the right of ORGI to bring/deploy any external resources / agencies at any time for SLA review
9. No Carry forward of any penalties of SLA calculations can be done from any of the preceding quarters
10. The Agency shall deploy sufficient manpower suitably qualified and experienced in shifts to meet the SLA. Agency shall appoint as many team members as deemed fit by them, to meet the time Schedule and SLA requirements.

9.9. Professional Project Management

ADMA shall execute the project with complete professionalism and full commitment to the scope of work and the prescribed service levels. ADMA shall attend regular Project Review Meetings scheduled by ORGI and shall adhere to the directions given during the meeting. The Project Review meetings must be led by Senior Management of ADMA who would be dedicatedly involved during the entire term of the

contract. Following responsibilities are to be executed by ADMA in regular manner to ensure the proper management of the project:

a) Finalization of the Project plan in consultation with ORGI and its consultant. Project Plan should consist of work plan, communication matrix, timelines, Quality Plan, SLA Management Plan, etc.
b) Preparation and regular update of the Risk Register and the Mitigation Plan. Timely communication of the same to all the identified project stakeholders
c) Submission of Monthly Project Progress Reports
d) Monthly Compliance report, which will cover compliances to Project Timelines, Hardware and Software delivered, SLAs, etc.

9.10. Use & Acquisition of Assets during the term

During the Term of the Agreement, ADMA shall:

i. Take all reasonable and proper care of the entire hardware and software, network or any other information technology infrastructure components, Deliverables used for the project and other facilities leased/owned/operated by ADMA exclusively in terms of the delivery of the services as per the CA (hereinafter the "Assets") in proportion to their use and control of such Assets which will include all upgrades/enhancements and improvements to meet the needs of the project arising from time to time

ii. Term "Assets" also refers to all the hardware / Software / furniture / data / documentations / manuals/ or any other material procured, created or utilized by ADMA or ORGI for implementation of IT Infrastructure solution.

iii. Keep all the tangible Assets in good and serviceable condition (reasonable wear and tear excepted) as on the date ADMA takes control of and/or first uses the Assets suitably upgraded subject to the relevant standards as stated in the bid to meet the SLAs mentioned in the contract and during the entire term of the Agreement

iv. Ensure that any instructions or manuals supplied by the manufacturer of the Assets for use of Assets and which are provided to ADMA will be followed by ADMA and any person who will be responsible for the use of the Asset

v. Take such steps as may be recommended by the manufacturer of the Assets and notified to ADMA or as may in the reasonable opinion of ADMA be necessary to use the Assets in a safe manner

vi. To the extent that the Assets are under the control of ADMA, keep the Assets suitably housed and in conformity with any statutory requirements from time to time applicable to them and as per the terms agreed with ORGI

vii. Not, knowingly or negligently use or permit any of the Assets to be used in contravention of any statutory provisions or regulation or in any way contrary to law

viii. Use the Assets exclusively for the purpose of providing the Services as defined in the contract

ix. Ensure the integration of the software with hardware to be setup and the current Assets in order to ensure the smooth operations of the entire solution architecture to provide efficient services to ORGI of this Project in an efficient and speedy manner

x. ADMA shall not use ORGI data to provide services for the benefit of any third party, as a service bureau or in any other manner

xi. Use best efforts to ensure that no lien, mortgage, hypothecation or any other charge is created over the Assets. ADMA agrees that ADMA will inform ORGI immediately if ADMA feels or comes to know that a charge may be / has been created over any Asset(s). In the event a charge is created over any of the Assets which are owned by, ORGI shall have the right to get the charge removed at the risk, cost, expense of ADMA and ADMA shall make good all losses, damages, costs, fees, cess, duties, etc. borne or suffered by ORGI due to creation of such charge and/or in removal of such charge and/or in discharging the obligations for removal of such charge.

9.11. Access to ORGI or its nominated agencies to certain locations

i. For so long as ADMA provides services to ORGI or its nominated agencies location, as the case may be, on a non-permanent basis and to the extent necessary, ORGI as the case may be or its nominated agencies shall, subject to compliance by ADMA with any safety and security guidelines which may be provided by ORGI as the case may be or its nominated agencies and notified to ADMA in writing, provide ADMA with:

(a) reasonable access to the location from where services are to be performed (except such ADMA's offices etc. over which ADMA has control), in the same manner as granted to ORGI or its nominated agencies' employees, as the case may be;

(b) subject to (a) above, reasonable work space, access to office equipment as mutually agreed and other related support services in such location and at such other locations ORGI as the case may, if any, as may be reasonably necessary for ADMA to perform its obligations hereunder.

ii. Access to locations, office equipment and services shall be made available to ADMA on an "as is, where is" basis by ORGI as the case may be or its nominated agencies. ADMA agrees to ensure that its employees and agents shall not use the location, services and equipment referred to in RFP for the following purposes:

(a) for the transmission of any material which is defamatory, offensive or abusive or of an obscene or menacing character; or

(b) in a manner which constitutes violation of any law or a violation or infringement of the rights of any person, firm or company (including but not limited to rights of copyright or confidentiality).

9.12. Security and safety

i. ADMA will comply with the directions issued from time to time by ORGI and the standards related to the security and safety in so far as it applies to the provision of the Services

ii. Adherence to basic e-Governance Guidelines and Standards for data structure (if any) shall be adhered to.

iii. ADMA shall also comply with ORGI's information technology security and standard policies in force from time to time as applicable. ORGI shall share the relevant guidelines and standards to ADMA upon signing of the CA.

iv. ADMA shall use reasonable endeavours to report forthwith in writing to ORGI all identified attempts (whether successful or not) by unauthorised person (including unauthorized persons

who are employees of any Party) either to gain access or interfere with ORGI's data or any of its nominee's data, facilities or Confidential Information.

v. ADMA shall upon reasonable request by ORGI or his/her nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.

vi. ADMA shall promptly report in writing to ORGI any act or omission which they are aware that could have an adverse effect on the proper conduct of safety and information technology security at ORGI.

9.13. Performance Bank Guarantee

ADMA shall at its own expense, deposit with ORGI, within 10 days of issuance of the Letter of Intent (LoI), an unconditional and irrevocable and continuing Performance Bank Guarantee (PBG) from Nationalized /Scheduled Bank payable on demand, for the due performance and fulfilment of the contract by ADMA. This Performance Bank Guarantee will be for an amount equivalent to 10% of the Total Contract Value. All charges whatsoever such as premium, commission, etc. with respect to the PBG shall be borne by ADMA. The format for PBG is placed at Annexure 18.

The PBG should be valid for additional 60 days beyond validity of the Contract Agreement. The PBG shall be discharged/returned by ORGI upon being satisfied that there has been due performance of the obligations of ADMA under the contract. However, no interest shall be payable on the PBG. In the event, ADMA being unable to service the contract for whatever reason, department would liquidate the PBG. Notwithstanding and without prejudice to any rights whatsoever of department under the Contract in the matter, the proceeds of the PBG shall be payable to ORGI as compensation for any loss resulting from ADMA's failure to complete its obligations under the Contract.

ORGI shall also be entitled to make recoveries from ADMA's bills, PBG, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement. If the PBG is liquidated /encashed, in whole or in part, during the currency of the PBG, ADMA shall top up the PBG with the same amount as has been encashed within 15 days of such encashment without demur till the validity of PBG.

9.14. Indemnification

i. Subject to Sub-clause (2) below, ADMA (the "Indemnifying Party") undertakes to indemnify ORGI and its nominated agencies (the "Indemnified Party") from and against all losses, claims litigation, compensation and damages on account of bodily injury, death or damage to tangible personal property arising in favour or any person, corporation or other entity (including the Indemnified Party) attributable to the Indemnifying Party's performance or non-performance under the Agreement or the SLAs.

ii. If the Indemnified Party promptly notifies the Indemnifying Party in writing of a third party claim against the Indemnified Party that any Deliverables/ Services/Goods provided by the Indemnifying Party infringes a copyright, trade secret, patents or other intellectual property rights of any third party, the Indemnifying Party will defend such claim at its expense and will pay any costs or damages that may be finally awarded against the Indemnified Party. The Indemnifying Party will not indemnify the Indemnified Party, however, if the claim of infringement is caused by (a) the Indemnified Party's misuse or modification of the Deliverables;

or (b) the Indemnified Party's failure to use corrections or enhancements made available by the Indemnifying Party; or (c) the Indemnified Party's use of the Deliverables in combination with any product or information not owned or developed or supplied by the Indemnifying Party. If any Deliverable is or likely to be held to be infringing, the Indemnifying Party shall at its expense and option either (i) procure the right for Indemnified Party to continue using it, or (ii) replace it with a non-infringing equivalent, or (iii) modify it to make it non-infringing.

iii. The Indemnifying Party shall indemnify the Indemnified Party against all losses (including loss of business, reputation, profits, revenue etc.), claims, damages, compensation, charges (including attorney fees) etc. arising out of data loss, data theft, data misuse, data tempering, unauthorized use or disclosure of Confidential Information etc. attributable to the Indemnifying Party's negligence, wilful default, lack of due care or beach of terms of the Agreement.

iv. The Indemnifying Party shall indemnify the Indemnified Party against all losses (including loss of business, reputation, profits, revenue etc.), claims, damages, compensation, charges (including attorney fees) etc. arising out of Claim filed by a workman or employee engaged by ADMA for carrying out work related to the Agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.

v. Any payment made under the Agreement to an indemnity or claim for breach of any provision of the Agreement shall include applicable taxes.

vi. The indemnity shall be to the extent of 100% of Total Contract Value.

vii. The indemnities set out in this clause 9.14 above shall be subject to the following conditions:

a. The Indemnified Party, as promptly as practicable, informs the Indemnifying Party in writing of the claim or proceedings and provides all relevant evidence, documentary or otherwise;
b. The Indemnified Party shall, at the cost and expenses of the Indemnifying Party, give the Indemnifying Party all reasonable assistance in the defence of such claim including reasonable access to all relevant information, documentation and personnel, provided that Indemnified Party at the Indemnifying Party's cost and expenses, reasonably participate, through its attorneys or otherwise, in such defence..
c. If the Indemnifying Party does not assume full control over the defence of a claim as provided in this clause, the Indemnified Party may participate in such defence at the Indemnifying Party's sole cost and expense, and the Indemnified Party will have the right to defend the claim in such manner as it may deem appropriate.
d. The Indemnified Party shall not prejudice, pay or accept any proceedings or claim, or compromise any proceedings or claim, without the written consent of the Indemnifying Party;
e. All settlements of claims subject to indemnification under this Article will: (a) be entered into only with the consent of the Indemnified Party, which consent will not be unreasonably withheld and include an unconditional release to the Indemnified Party from the claimant for all liability in respect of such claim; and (b) include any appropriate confidentiality agreement prohibiting disclosure of the terms of such settlement;
f. The Indemnified Party shall take steps that the Indemnifying Party may reasonably require to mitigate or reduce its loss as a result of such a claim or proceedings; and
g. In the event that the Indemnifying Party is obligated to indemnify an Indemnified Party pursuant to this Clause, the Indemnifying Party will, upon payment of such indemnity in full,

be subrogated to all rights and defences of the Indemnified Party with respect to the claims to which such indemnification relates;

h. In the event that the Indemnifying Party is obligated to indemnify the Indemnified Party pursuant to this Article, the Indemnified Party will be entitled to invoke the Performance Bank Guarantee (PBG), if such indemnity is not paid, either in full or in part, and on the invocation of the Performance Bank Guarantee, the Indemnifying Party shall be subrogated to all rights and defences of the Indemnified Party with respect to the claims to which such indemnification relates.

viii. ADMA will defend or settle third party claims against ORGI solely attributable to ADMA's infringement of any copyrights, trademarks or industrial design rights alleged to have occurred in respect of ADMA branded hardware/software/deliverables etc. (together "deliverables") supplied by ADMA. ADMA shall pay all costs, damages and attorney's fees that a court finally awards.

ix. ORGI shall provide ADMA with prompt notice of such claim and extend full cooperation and assistance, information and authority reasonably necessary to defend or settle such claim. ADMA will have adequate opportunity to control the response thereto and the defence thereof.

x. Further as an exclusion, ADMA shall have no obligation for any claim of infringement to the extent arising from use of the deliverables in a way not indicated in the statement of work or in any specifications or documentation provided with such deliverable

9.15. Representations and Warranties

i. ADMA warrants and represents to ORGI that:

a. It has full capacity and authority and all necessary approvals to enter into and to perform its obligations under the Agreement;
b. The Agreement is executed by a duly authorized representative of ADMA;
c. It shall discharge its obligations under the Agreement with due skill, care and diligence so as to comply with the service level agreement.

ii. In the case of the SLAs, ADMA warrants and represents to ORGI, that:

a. ADMA has full capacity and authority and all necessary approvals to enter into and perform its obligations under the SLAs and to provide the Services;
b. The SLAs shall be executed by a duly authorized representative of ADMA;
c. The Services will be provided and rendered by appropriately qualified, trained and experienced personnel as mentioned in the bid;
d. ADMA has and will have all necessary licenses, approvals, consents of third Parties free from any encumbrances and all necessary technology, hardware and software to enable it to provide the Services;
e. The Services will be supplied in conformance with all laws, enactments, orders and regulations applicable from time to time;
f. If the ADMA uses in the course of the provision of the Services, components, equipment, software and hardware manufactured by any third party and which are embedded in the Deliverables or are essential for the successful use of the Deliverables, it will pass through third party manufacturer's Warranties relating to those components, equipment, software and hardware to the extent possible.

iii. Notwithstanding what has been stated elsewhere in the Agreement and the Schedules attached herein, in the event ADMA is unable to meet the obligations pursuant to the Implementation of

the IT Infrastructure Solution, Operations and Maintenance Services and any related scope of work as stated in the Agreement and the Schedules attached herein, ORGI will have the option to invoke the Performance Security after serving a written notice of thirty (30) days to ADMA.

The 30 day notice period shall be considered as the 'Cure Period' to facilitate ADMA to cure the breach. The PBG shall be evoked only if the breach is solely attributable to ADMA and ADMA fails to rectify the breach within the 'Cure Period'.

9.16. Force Majeure

ADMA shall not be liable for forfeiture of its Performance Security, imposition of liquidated damages or termination for default, if and to the extent that it's delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the "reasonable" control of ADMA, not involving ADMA's fault or negligence and not foreseeable. Unforeseen circumstances or causes beyond the control of ADMA include but are not limited to acts of God, war, riot, acts of civil or military authorities, fire, floods, accidents, terrorist activity, strikes or shortages of transportation facilities, fuel, energy, labour or material.

For ADMA to take benefit of this clause it is a condition precedent that ADMA must promptly notify ORGI, in writing of such conditions and the cause thereof within five calendar days of the arising of the Force Majeure event. ORGI, or the consultant / committee appointed by ORGI shall study the submission of ADMA and inform whether the situation can be qualified one of Force Majeure. Unless otherwise directed by ORGI in writing, ADMA shall continue to perform its obligations under the resultant Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance of services not prevented by the existence of a Force Majeure event.

In the event of delay in performance attributable to the presence of a force majeure event, the time for performance shall be extended by a period(s) equivalent to the duration of such delay. If the duration of delay continues beyond a period of 30 days, ORGI and ADMA shall hold consultations with each other in an endeavour to find a solution to the problem.

Notwithstanding anything to the contrary mentioned above, the decision of ORGI shall be final and binding on ADMA.

9.17. Resolution of Disputes

1. Conciliation
   In the event of any dispute between ADMA and ORGI, either Party may require such dispute to be referred to the Secretary, ORGI and the authorized Chairman of the Board of Directors of ADMA for amicable settlement, and upon such reference, the said persons shall meet no later than 7 (seven) days from the date of reference to discuss and attempt to amicably resolve the dispute. If such meeting does not take place within the 7 (seven) day period or the dispute is not amicably settled within 15 (fifteen) days of the meeting or the dispute is not resolved either Party may refer the dispute to arbitration in accordance with the provisions of the clause Arbitration.

2. Arbitration

If efforts in conciliation fail, the Parties to the resultant contract agree to resolve their contractual disputes in accordance with the ICADR Arbitration Rules, 1996 and to have the ICADR act as appointing authority and/or provide administrative services, may use the following clauses;

i. If dispute arises out of or in connection with this contract, or in respect of any defined legal relationship associated therewith or derived the reform, the parties agree to submit that dispute to arbitration under the ICADR Arbitration Rules, 1996.
ii. The authority to appoint the arbitrator(s) shall be the International Centre for Alternative Dispute Resolution.
iii. The International Centre for Alternative Dispute Resolution will provide administrative services in accordance with the ICADR Arbitration Rules, 1996.
iv. The number of arbitrator(s) shall be 3.
v. The language of the arbitrator proceedings shall be English.
vi. The place of arbitration proceedings shall be New Delhi.

9.18. Limitation of Liability towards ORGI

The aggregate liability of ADMA (whether in contract, tort, negligence, strict liability in tort, by statute or otherwise) for any claim in any manner related to the Agreement, including the work, Deliverables or Services covered by the Agreement, shall be the payment of direct damages only which shall in no event in the aggregate exceed the Total Value of Project.

Except as otherwise provided herein, in no event shall either party be liable for any consequential, incidental, indirect, special or punitive damage, loss or expenses (including but not limited to business interruption, lost business, lost profits, or lost savings) nor for any third party claims even if it has been advised of their possible existence.

Notwithstanding anything contained in the foregoing, the liability cap and exclusion for ADMA given under this Clause shall not be applicable to the indemnification obligations and confidential obligations and ensuring security and safety by ADMA as set out in this RFP.

9.19. Data Ownership

All the data created as the part of the project shall be owned by ORGI. ADMA shall take utmost care in maintaining security, confidentiality and backup of this data. ORGI shall retain ownership of any user created/loaded data and applications hosted on ADMA's infrastructure and maintains the right to request (or should be able to retrieve) full copies of these at any time.

9.20. Fraud and Corruption

ORGI requires that ADMA must observe the highest standards of ethics during the execution of the contract. In pursuance of this policy, ORGI defines, for the purpose of this provision, the terms set forth as follows:

i. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of ORGI in contract executions.

ii. "Fraudulent practice" means a misrepresentation of facts, in order to influence a procurement process or the execution of a contract, to ORGI, and includes collusive practice among ADMAs (prior to or after bid submission) designed to establish bid prices at artificially high or non-competitive levels and to deprive ORGI of the benefits of free and open competition.

iii. "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by ORGI with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

iv. "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among ADMAs with the objective of restricting or manipulating a full and fair competition in the Selection Process.

v. "Coercive Practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the execution of contract.

vi. If it is noticed that ADMA has indulged into the Corrupt / Fraudulent / Undesirable / Coercive practices (as be decided by a court or competent authority with appropriate jurisdiction), it will be a sufficient ground for ORGI for termination of the contract and initiate black-listing of the vendor.

9.21. Conflict of Interest

i. ADMA shall disclose to ORGI in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for ADMA or its team) in the course of performing the Services as soon as it becomes aware of such a conflict. ADMA shall hold ORGI's interest paramount, without any consideration for future work, and strictly avoid conflict of interest with other assignments.

ii. In the event of any question, dispute or difference arising under the agreement or in connection there-with, the same shall be referred to the sole arbitration of the RGI or in case his designation is changed or his office is abolished, then in such cases to the sole arbitration of the officer for the time being entrusted (whether in addition to his own duties or otherwise) with the functions of the RGI or by whatever designation such an officer may be called (hereinafter referred to as the said officer), and if the Chairman of Board or the said officer is unable or unwilling to act as such, then to the sole arbitration of some other person appointed by the RGI or the said officer. The agreement to appoint an arbitrator will be in accordance with the Arbitration and Conciliation Act 1996. There will be no objection to any such appointment on the ground that the arbitrator is a Government Servant or that he has to deal with the matter to which the agreement relates or that in the course of his duties as a Government Servant he has expressed his views on all or any of the matters in dispute. The award of the arbitrator shall be final and binding on both the parties to the agreement. In the event of such an arbitrator to whom the matter is originally referred, being transferred or vacating his office or being unable to act for any reason whatsoever, the RGI or the said officer shall appoint another person to act as an arbitrator in accordance with terms of the agreement and the person so appointed shall be entitled to proceed from the stage at which it was left out by his predecessors.

iii. The arbitrator may from time to time with the consent of both the parties enlarge the time frame for making and publishing the award. Subject to the aforesaid, arbitration and Conciliation Act, 1996 and the rules made there under, any modification thereof for the time being in force shall be deemed to apply to the arbitration proceeding under this clause.

iv. The venue of the arbitration proceeding shall be the office of the RGI, or such other places as the arbitrator may decide.

9.22. Exit Management

(i) Exit Management Purpose

This clause sets out the provisions, which will apply during Exit Management period. The Parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management Clause.

The exit management period starts, in case of expiry of contract, at least 2 months prior to the date when the contract comes to an end or in case of termination of contract, on the date when the notice of termination is sent to ADMA. The exit management period ends on the date agreed upon by ORGI or 2 months after the beginning of the exit management period, whichever is earlier.

(ii) Confidential Information, Security and Data

ADMA will promptly, on the commencement of the exit management period, supply to ORGI or its nominated agencies the following:

a. Information relating to the current services rendered and performance data relating to the performance of the services; documentation relating to the project, project's customized source code; any other data and confidential information created as part of or is related to this project;
b. Project data as is reasonably required for purposes of the project or for transitioning of the services to its replacing successful ADMA in a readily available format.
c. All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable ORGI and its nominated agencies, or its replacing vendor to carry out due diligence in order to transition the provision of the Services to ORGI or its nominated agencies, or its replacing vendor (as the case may be).
d. ADMA shall retain all of the above information with them for 30 days after the termination of the contract, post which the provider has to wipe/purge/delete all information created or retained as part of this project.
e. ADMA will sign a Non-Disclosure Agreement with ORGI. The format for the same has been included in Annexure 13.

(iii) Employees

Promptly on reasonable request at any time during the exit management period, ADMA shall, subject to applicable laws, restraints and regulations (including in particular those relating to privacy) provide to ORGI a list of all employees (with job titles and communication address) of the Successful ADMA, dedicated to providing the services at the commencement of the exit management period; To the extent that any Transfer Regulation does not apply to any employee of the Successful ADMA, ORGI or Replacing Vendor may make an offer of contract for services to such employee of ADMA and ADMA shall not enforce or impose any contractual provision that would prevent any such employee from being hired by ORGI or any Replacing Vendor.

(iv) Rights of Access to Information

At any time during the exit management period, ADMA will be obliged to provide an access of information to ORGI and / or any Replacing Vendor in order to make an inventory of the Assets (including hardware / Software / Active / passive), documentations, manuals, catalogues, archive

data, Live data, policy documents or any other material related to implementation of IT Infrastructure Solution for ORGI.

(v) Exit Management Plan

Successful ADMA shall provide ORGI with a recommended "Exit Management Plan" within 90 days of signing of the contract, which shall deal with at least the following aspects of exit management in relation to the SLA as a whole and in relation to the Project Implementation, the Operation and Management SLA and Scope of work definition.

a) A detailed program of the transfer process that could be used in conjunction with a Replacement Vendor including details of the means to be used to ensure continuing provision of the services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer;
b) Plans for the communication with such of ADMA, staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on Project's operations as a result of undertaking the transfer;
c) Plans for provision of contingent support to the implementation of IT Infrastructure Solution for a reasonable period (minimum one month) after transfer.
d) Exit Management Plan shall be presented by ADMA to and approved by ORGI or its nominated agencies.
e) The terms of payment as stated in the Payment Terms include the costs of ADMA complying with its obligations under this Schedule.
f) During the exit management period, ADMA shall use its best efforts to deliver the services.
g) Payments during the Exit Management period shall be made in accordance with the Payment Terms.

9.23. Events of Default and Termination

1. Events of Default

i. The failure on the part of ADMA to perform any of its obligations or comply with any of the terms of the Agreement shall constitute an Event of Default on the part of ADMA. The events of default as mentioned above may include, inter-alia, the following:

a) ADMA has failed to perform any instructions or directives issued by ORGI which it deems proper and necessary to execute the scope of work under the Agreement; or
b) ADMA has failed to remedy a failure to perform its obligations in accordance with the specifications issued by ORGI, despite being served with a default notice which laid down the specific deviance on the part of ADMA to comply with any stipulations or standards as laid down by ORGI; or
c) ADMA or its team has failed to conform with any of the service specifications as set out in the RFP or the Agreement or has failed to adhere to any amended direction, modification or clarification as issued by ORGI during the term of the Agreement and which ORGI deems proper and necessary for the execution of the scope of work under the Agreement;
d) ADMA has failed to demonstrate or sustain any representation or warranty made by it in the Agreement, with respect to any of the terms of its Proposal, the RFP and the Agreement;
e) There is a proceeding for bankruptcy, insolvency, winding up or there is an appointment of receiver, liquidator, assignee, or similar official against or in relation to ADMA;

f) ADMA or its team has failed to comply with or is in breach or contravention of any Applicable Laws;
g) ADMA has failed to comply with any terms and conditions of the the Agreement;

h) Undue delay in achieving the agreed timelines for delivering the services under the Agreement;
i) Quality of Deliverables and services consistently not being to the satisfaction of ORGI.

ii. Where there has been an occurrence of such Event of Defaults, inter alia, as stated above, ORGI shall issue a notice of default to ADMA, setting out specific defaults / deviances / omissions and providing a notice of up to thirty (30) days to enable ADMA to remedy the default/ deviances / omissions committed.

iii. Where despite the issuance of a default notice to ADMA by ORGI ADMA fails to remedy the default to the satisfaction of ORGI, ORGI may, where it deems fit, issue to ADMA another default notice or proceed to adopt such remedies as may be available to ORGI including but not limited to the remedies provided in clause 9.23(2) below.

2. Consequences for Event of Default

Where an Event of Default subsists or remains uncured, ORGI shall be entitled to:

i. Impose any such obligations and conditions and issue any clarifications as may be necessary to, inter alia, ensure smooth continuation of the Services and the project which ADMA shall be obliged to comply with, which may include unilateral re-determination of the consideration payable to ADMA under the Agreement. ADMA shall in addition take all available steps to minimize loss resulting from such event of default.

ii. Suspend all payments to ADMA under the Agreement by written notice of suspension to ADMA provided that such notice of suspension shall (a) specify the nature of failure; and (b) request ADMA to remedy such failure within a specified period from the date of receipt of such notice of suspension by ADMA

iii. Terminate the Agreement in full or in part.

iv. Retain such amounts from the payment due and payable by ORGI to ADMA as may be required to offset any losses caused to ORGI as a result of such event of default and ADMA shall compensate ORGI for any such loss, damages or other costs, incurred by ORGI in this regard. Nothing herein shall effect the continued obligation of other members of its Team to perform all their obligations and responsibilities under the Agreement in an identical manner as were being performed before the occurrence of the default.

v. Invoke the Performance Bank Guarantee furnished hereunder, enforce indemnity provisions, recover such other costs/losses and other amounts from ADMA which may have resulted from such default and pursue such other rights and/or remedies that may be available to ORGI under law.

3. Termination for Breach

ORGI may, terminate the Agreement by giving ADMA a prior and written notice of up to 30 days indicating its intention to terminate the Agreement under the following circumstances:

i. Where ORGI is of the opinion that there has been such Event of Default on the part of ADMA which would make it proper and necessary to terminate the Agreement and may include failure on the part of ADMA to respect any of its commitments with regard to any part of its obligations under its Proposal, the RFP or under the Agreement.

ii. Where it comes to ORGI's attention that ADMA (or ADMA's Team) is in a position of actual conflict of interest with the interests of ORGI, in relation to any of terms of ADMA's Proposal, the RFP or the Agreement.

iii. ORGI may terminate the Agreement due to reason specified in clause 9.6;

iv. ORGI may terminate the Agreement if it comes to knowledge of ORGI that ADMA or any of ADMA's personnel have been involved in any fraudulent or corrupt practices or any other practice of similar nature.

4. Termination for Convenience

ORGI may, by written notice of 60 (sixty) days sent to ADMA, terminate the Agreement, in whole or in part at any time for its convenience. The notice of termination shall specify that termination is for ORGI's convenience, the extent to which performance of work under the Agreement is terminated, and the date upon which such termination becomes effective.

5. Effects of Termination

i. In the event of termination of the Agreement due to any cause whatsoever, (whether consequent to the stipulated Term of the Agreement or otherwise) ORGI shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the project which ADMA shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/breach, and further allow the successor ADMA to take over the obligations of the erstwhile ADMA in relation to the execution/continued execution of the scope of the Agreement.

ii. In the event that the termination of the Agreement is due to the expiry of the Term of the Agreement / a decision not to grant any (further) extension by ORGI, or where the termination is prior to the expiry of the stipulated term due to the occurrence of any Event of Default on the part of ADMA, ADMA herein shall be obliged to provide all such assistance to the successor ADMA or any other person as may be required and as ORGI may specify including training, where the successor(s) is a representative/personnel of ORGI to enable the successor to adequately provide the Services hereunder, even where such assistance is required to be rendered for a reasonable period that may extend beyond the Term/earlier termination hereof. Without prejudice to the foregoing, upon termination (or upon expiry of the Term) of the Agreement, the Parties will comply with the Exit Management Schedule/ Plan set out in the RFP (and as revised from time to time).

iii. Where the termination of the Agreement is prior to its stipulated term on account of a Default on the part of ADMA or due to the fact that the survival of ADMA as an independent corporate entity is threatened/has ceased, ORGI shall pay ADMA for that part of the Goods and the Services which have been authorized by ORGI and satisfactorily delivered / performed by ADMA up to the date of termination. Without prejudice any other rights, ORGI may retain such amounts from the payment due and payable by ORGI to ADMA as may be required to offset any losses caused to ORGI

as a result of any act/omissions of ADMA. In case of any loss or damage due to default on the part of ADMA in performing any of its obligations with regard to executing the scope of work under the Agreement, ADMA shall compensate ORGI for any such loss, damages or other costs, incurred by ORGI. Additionally, other members of its team shall perform all its obligations and responsibilities under the Agreement in an identical manner as were being performed before the collapse of ADMA as described above in order to execute an effective transition and to maintain business continuity. All third parties shall continue to perform all/any functions as stipulated by ORGI and as may be proper and necessary to execute the scope of work under the Agreement in terms of ADMA's Proposal, the RFP and the Agreement.

iv. Nothing herein shall restrict the right of ORGI to invoke the Bank Guarantee and other Guarantees furnished hereunder and pursue such other rights and/or remedies that may be available to ORGI under law.

v. Any and all payments under this clause shall be payable only after ADMA has complied with and completed the transition and exit management as per the Exit Management Plan to the satisfaction of ORGI. In case of expiry of the Agreement, the last due payment shall be payable to ADMA after ADMA has complied with and completed the transition and exit management as per the Exit Management Plan to the satisfaction of ORGI.

6. Termination due to bankruptcy

ORGI may serve written notice on the ADMA at any time to terminate the Agreement with immediate effect in the event that the ADMA reporting an apprehension of bankruptcy to ORGI or its nominated agencies. No charges to ADMA shall be payable in case of termination under this Clause except payment under clause 9.23(5) (v).

7. The termination provisions set out in this Clause are in addition to any termination rights that ORGI may have under the Agreement/RFP and are in addition to, and without prejudice to, other rights that ORGI may have under law and the Agreement.

9.24. Confidentiality

1. ORGI "Confidential Information" shall have the same meaning as provided in the Definition Clause of the RFP.
2. ORGI may allow ADMA to utilize highly Confidential Information including confidential public records and ADMA shall maintain the highest level of secrecy, confidentiality and privacy with regard to such Confidential Information. ADMA shall use its best efforts to protect the confidentiality and proprietary of Confidential Information.
3. Additionally, ADMA shall keep confidential all the details and information with regard to the Project, including systems, facilities, operations, management and maintenance of the systems/facilities. ADMA shall use the information only to execute the Project.
4. ORGI shall retain all rights to prevent, stop and if required take the necessary punitive action against ADMA regarding any forbidden disclosure.
5. ADMA may share the confidential information with its employees and agents but only strictly on a need to know basis. ADMA shall execute a corporate non-disclosure agreement with ORGI in the format provided by ORGI and shall ensure that all its employees and agents execute individual non-disclosure agreements, which have been duly approved by ORGI with respect to this Project.

6. The confidentiality obligations will not apply to information that:

   a. Is or becomes generally available to the public through no breach of this Clause by the recipient; and
   b. Was in the recipient's possession free of any obligation of confidence prior to the time of receipt of it by the recipient hereunder as evidenced by documentation in recipient's possession; and
   c. Is identified in writing by the discloser as no longer proprietary or confidential; or
   d. Is required to be disclosed by law, regulation or Court Order, provided that the recipient gives prompt written notice to the discloser of such legal and regulatory requirement to disclose so as to allow the discloser reasonable opportunity to contest such disclosure.

The provisions of this Article shall survive for a period of 5 (five) years following the expiration or any earlier termination of the Agreement.

9.25. Audit

ADMA shall allow access to ORGI or its nominated agencies to all information which is in the possession or control of ADMA or its agents, suppliers etc. and which relates to the provision of the Services/Deliverables as set out in the Audit, Access and Reporting Schedule and which is reasonably required by ORGI to comply with the terms of the Audit, Access and Reporting Schedule set out in the RFP.

9.26. Ownership and Intellectual Property Rights

i. Products and fixes: All products and related solutions and fixes provided pursuant to the RFP and the Agreement shall be licensed according to the terms of the license agreement packaged with or otherwise applicable to such product. Such licenses shall be brought on behalf of and in the name of ORGI or mentioning ORGI as the end user of such licenses. ADMA would be responsible for arranging any licenses associated with products. "Product" means any computer code, web-based services, or materials comprising commercially released, pre-release or beta products (whether licensed for a fee or no charge) and any derivatives of the foregoing which are made available to ORGI for license which is published by product owner or its affiliates, or a third party. "Fixes" means product fixes that are either released generally (such as commercial product service packs) or that are provided to you when performing services (such as workarounds, patches, bug fixes, beta fixes and beta builds) and any derivatives of the foregoing. All intellectual property rights in any development/enhancement/customization etc. done on the open source products pursuant to the RFP and the Agreement shall be owned by ORGI.

ii. Bespoke development: Upon acceptance of any bespoke development made under the RFP and the Agreement, the ownership of all IPR rights in any and all bespoke development done during the Term for implementation of the Project under the Agreement will lie with ORGI. ADMA shall provide source code, object code and all other relevant materials, artefacts etc. of all bespoke development to ORGI and ORGI shall own all IPRs in them. All material related to such bespoke development shall be treated as confidential information by ADMA. This will also include any developments on open source technologies. This includes CIRBD application, SIRBD application and SRS application as per the scope of this RFP.

iii. Training and other material: The ownership of all IPR rights in any and all documents, artefacts, etc. (including all training material) made during the Term for implementation of the Project under the Agreement will lie with ORGI.

iv. Pre-existing work of ADMA: For the purpose of the RFP and the Agreement, 'pre-existing work of the ADMA' shall mean such work of ADMA, agents, representatives which has been evidently developed by ADMA and its agents, representatives prior to execution of the Agreement. . To the extent ADMA uses any of pre-existing work of the ADMA (or its agents, representatives) in provision of services / Deliverables under the Agreement, the ADMA hereby transfers (for itself and on behalf of its agents etc.) all rights, title and interest (including all intellectual property rights) in such pre-existing work of the ADMA and/or that of its agents, representatives to ORGI. ADMA shall provide to ORGI (to the satisfaction of ORGI) all documentation including, without limitation, source code, object code, SRS, FRS, operational documents etc. of such pre-existing work of the ADMA and/or that of its agents, representatives before using such pre-existing work of the ADMA and/or that of its agents, representatives in provision of services / Deliverables under the Agreement.

v. Third Party Products: If license agreements are necessary or appropriate between ADMA and third parties for purposes of enabling / enforcing/implementing the provisions hereinabove, ADMA shall enter into such agreements at its own sole cost, expense and risk.

9.27. Warranty

1. General:

The warranties and remedies provided in this clause are in addition to, and not in derogation of, the warranties provided in the RFP and the two are to be read harmoniously. ADMA represents, warrants and covenants that: (a) ADMA is the lawful owner of the Goods (including those Goods and Deliverables that are to be transferred to ORGI as per the RFP) and the lawful owner or licensee of the materials used in the performance of the Services and delivery of Deliverables, (b) the bespoke development and such materials have been lawfully developed or acquired by ADMA, and (c) ADMA has the right to sell the Goods to ORGI and to grant ORGI the rights to the bespoke development and such materials, including the rights of access to and use of the bespoke development, which it grants under the RFP, without the consent of any other person or entity. ADMA represents, warrants and covenants that during the Warranty Period it will promptly provide ORGI with any and all maintenance modifications, enhancements, and related documentation which ADMA or its OEM makes available to any other person or entity.

2. Warranty of Goods:

a) ADMA represents, warrants and covenants each of the following:
   (i) That ORGI shall acquire good and clear title on the Goods, free and clear of any and all charges and encumbrances and shall have right to uninterrupted use of such Goods;
   (ii) That the Goods and all of its parts and components are new and unused;
   (iii) That the Goods are free from defects in material and workmanship under normal use and that the Goods shall remain in good working order during the Warranty Period.
   (iv) That the Goods are and shall remain throughout the Warranty Period eligible for maintenance under the OEM's standard maintenance agreement.
   (v) That the Goods are fit for the purpose of successfully implementing the Project.

(vi) That the Goods shall not become end of support during the Warranty Period and at least 2 years thereafter.

b) ORGI shall be entitled to install an attachment, feature or device to the Goods, or make modifications, changes, enhancements, upgrades, or additions to the Software, without affecting ADMA's representations and warranties hereunder, unless ADMA, within a reasonable time not to exceed five (5) days after receipt from ORGI of written notice of its intention to do so, provides written notice to ORGI stating grounds which, in ORGI's sole determination are reasonable, upon which ADMA concludes such attachment, feature, device, modification, change, enhancement, upgrade or addition shall materially or adversely affect the System, thereby materially increasing ADMA's burden of compliance with certain identified sections of the RFP and the pursuant Agreement (the "Affected Obligations"). If the grounds set forth in the notice are determined by ORGI to be reasonable and ORGI employs such feature, device, modification, change, enhancement, upgrade or addition, ADMA shall not be liable for the resulting adverse effect on the Affected Obligations to the extent attributable to such action by ORGI. If the grounds set forth in the notice are determined by ORGI to not be reasonable and ORGI employs such feature, device, modification, change, enhancement, upgrade or addition, ADMA shall be liable for the resulting adverse effect on the Affected Obligations.

3. Warranty of Software

a. ADMA represents, warrants and covenants that on the acceptance date and for the Warranty Period, the Software will be free of material programming errors and will operate and conform to the respective Software's Documentation including, inter alia, FRS (Functional Requirement Specification) and SRS (System Requirement Specification) and other manuals. ADMA also represents, warrants and covenants that the medium on which the Software is contained when delivered to ORGI will be free from defects in material or workmanship and shall be free from any viruses, bugs etc.

b. ADMA represents, warrants and covenants that the technical Documentation delivered to ORGI for the System will be sufficient to allow a reasonably knowledgeable information technology professional to maintain and support such Software. ADMA represents, warrants and covenants that the user Documentation for the System will accurately describe in terms understandable by a typical end user the functions and features of the System and the procedures for exercising such functions and features.

4. Warranty for Services:

ADMA represents, warrants and covenants that all services carried out under the RFP and the Contract will be performed with promptness, due diligence, efficiency and professionalism/ethics and will be executed in a workmanlike and professional manner, in accordance with the professional standards and practices used in well managed operations performing services similar to the services under the RFP. ADMA shall always act in respect of any matter relating to this contract. ADMA shall abide by all the applicable provisions / Acts / Rules / Regulations, Standing orders, etc. of Information Technology standard as prevalent in the country. ADMA shall also conform to the standards laid down by or Government of India from time to time. Such standards and guidelines shall be shared with ADMA by ORGI up on signing of the Contract. ADMA represents, warrants and covenants that it shall use adequate numbers of qualified individuals with suitable training, education, experience and skill to perform the services hereunder.

5. Warranty for System

ADMA represents, warrants and covenants that for the Warranty Period and for as long as there is a maintenance agreement in effect between the Parties, the System shall at all times perform in accordance with the specifications in the Project Documents and meet the performance requirements set out in RFP. ADMA represents, warrants and covenants (a) that it shall ensure that no computer viruses or similar items are coded or introduced into the System or any systems used to perform the Services, and (b) that it shall not insert into any System any code which would have the effect of disabling or otherwise shutting down all or a portion of the System or damaging any information or functionality.

6. If during the Warranty Period of any component mentioned above, any of the warranties are found breached, ADMA shall promptly (but in no event more than 7 days), in consultation and agreement with ORGI, and at ADMA's sole cost repair, replace, or otherwise make good such default, defect or deficiency as well as any damage to the Project caused by such default, defect or deficiency. Any component that has been repaired or replaced by ADMA shall be delivered at ORGI's designated place without any additional costs to ORGI. Any component that has been replaced under this clause by ADMA shall remain the property of ADMA. ADMA shall use best efforts to ensure that such repair, replacement etc. shall be accomplished through a "hot" swap without any loss of production time or adverse impact on ORGI's or System's operations. If the System cannot be used by reason of such default, defect or deficiency and/or making good of such default, defect or deficiency, the warranty period for the System shall be extended by a period equal to the period during which the System or any of its components could not be used by ORGI because of such defect and/or making good of such default, defect or deficiency. Notwithstanding the foregoing, these are not the sole and exclusive remedies available to ORGI in case of breach of any warranty and are also not the sole and exclusive obligations on ADMA in case of breach of any warranty.

7. If the ADMA uses in the course of the provision of the Services, components, equipment, software and hardware manufactured by any third party and which are embedded in the Deliverables or are essential for the successful use of the Deliverables, it will pass through third party manufacturer's Warranties relating to those components, equipment, software and hardware to the extent possible.

9.28. Miscellaneous

a) Care to be taken while working at ORGI Office

ADMA should follow instructions issued by concerned ORGI's Competent Authority from time to time for carrying out work at designated places. ADMA should ensure that there is no damage caused to any private or public property. In case such damage is caused, ADMA shall immediately bring it to the notice of concerned organization and ORGI in writing and pay necessary charges towards fixing of the damage. ADMA shall ensure that its employees/representatives don't breach privacy of any citizen or establishment during the course of execution or maintenance of the project.

b) Compliance with Labour regulations

ADMA shall pay fair and reasonable wages to the workmen employed, for the contract undertaken and comply with the provisions set forth under the Minimum wages Act and the Contract Labour Act 1970. The salary of the manpower working on ORGI project should be paid using ECS / NEFT / RTGS. A record of the payments made in this regard should be maintained by ADMA. Upon request, this record shall be produced to the appropriate authority in ORGI and/or Judicial Body. If complaints

are received by ORGI (or any appropriate authority) appropriate action (Liquidation of Security Deposit, Blacklisting, etc.) may be initiated as deemed necessary against ADMA.

c) Independent Contractor

Nothing in the Agreement shall be construed as establishing or implying any partnership or joint venture or employment relationship between the Parties to the Agreement. Except as expressly stated in the Agreement nothing in the Agreement shall be deemed to constitute any Party as the agent of any other Party or authorizes either Party (i) to incur any expenses on behalf of the other Party, (ii) to enter into any engagement or make any representation or warranty on behalf of the other Party, (iii) to pledge the credit of or otherwise bind or oblige the other Party, or (iv) to commit the other Party in any manner whatsoever in each case without obtaining the other Party's prior written consent.

d) Waiver

A waiver of any provision or breach of the Agreement must be in writing and signed by an authorized official of the Party executing the same. No such waiver shall be construed to affect or imply a subsequent waiver of the same provision or subsequent breach of the Agreement.

e) Notices

Any notice or other document, which may be given by either Party under the Agreement, shall be given in writing in person or by pre-paid recorded delivery post.

In relation to a notice given under the Agreement, any such notice or other document shall be addressed to the other Party's principal or registered office address as set out below

Deputy Registrar General (CRS)

Office of the Registrar General, India

New Delhi - 110011

ADMA:

Tel: ----------

Fax: ----------

Any notice or other document shall be deemed to have been given to the other Party when delivered (if delivered in person) if delivered between the hours of 9.30 am and 5.30 pm at the address of the other Party set forth above or on the next working day thereafter if delivered outside such hours, and 7 calendar days from the date of posting (if by letter).

f) Personnel/Employees

Personnel/employees assigned by ADMA to perform the services shall be employees of ADMA, and under no circumstances will such personnel be considered as employees of ORGI. ADMA shall have the sole responsibility for supervision and control of its personnel and for payment of such personnel's employee's entire compensation, including salary, legal deductions withholding of income taxes and social security taxes, worker's compensation, employee and disability benefits and

the like and shall be responsible for all employer obligations under all laws as applicable from time to time. ORGI shall not be responsible for the above issues concerning to personnel of ADMA.

ADMA shall use its best efforts to ensure that sufficient ADMA personnel are employed to perform the Services, and that, such personnel have appropriate qualifications to perform the Services. ORGI or its nominated agencies shall have the right to require the removal or replacement of any ADMA personnel performing work under the Agreement. In the event that ORGI requests that any ADMA personnel be replaced, the substitution of such personnel shall be accomplished pursuant to a mutually agreed upon schedule and upon clearance of the personnel based on profile review and personal interview by ORGI or its nominated agencies as per defined SLAs. ADMA shall depute quality team for the project and as per requirements ORGI shall have the right to ask ADMA to change the team.

a. Management (Regional Head / VP level officer) of ADMA needs to be involved in the project monitoring and should attend the review meeting at least once in a month.
b. ADMA shall use its best efforts to ensure that sufficient of its personnel (but in no case, less than the personnel specified in the RFP) are assigned to successfully and timely perform the obligations under the Agreement and that such personnel have appropriate qualifications to perform the obligations. After discussion with ADMA, ORGI or its nominated agencies shall have the right to require the removal or replacement of any such personnel performing work under the Agreement based on bona-fide reasons. In the event ADMA or its nominated agencies requests that any of its personnel be replaced, the substitution of such personnel shall be accomplished pursuant to a mutually agreed upon schedule.
c. The profiles of resources proposed by ADMA in the technical bid, which are considered for Technical bid evaluation, shall be construed as 'Key Personnel' and ADMA shall not remove such personnel without the prior written consent of ORGI unless such removal is the result of resignation, termination of services, severe medical conditions or death. For any changes to the proposed resources, ADMA shall provide equivalent or more experienced resources in consultation with ORGI.
d. Except as stated in this clause, nothing in the Agreement will limit the ability of ADMA freely to assign or reassign its employees; provided that ADMA shall be responsible, at its expense, for transferring all appropriate knowledge from personnel being replaced to their replacements. ORGI shall have the right to review and approve ADMA's plan for any such knowledge transfer. ADMA shall maintain the same standards for skills and professionalism among replacement personnel as in personnel being replaced.
e. Each Party shall be responsible for the performance of all its obligations under the Agreement and shall be liable for the acts and omissions of its employees and agents in connection therewith.

g) Variations & Further Assurance

a. No amendment, variation or other change to the Agreement or the SLAs shall be valid unless made in writing & signed by the duly authorized representatives of the Parties to the Agreement.
b. Each Party to the Agreement or the SLAs agree to enter into or execute, without limitation, whatever other agreement, document, consent & waiver & to do all other things which shall or may be reasonably required to complete & deliver the obligations set out in the Agreement or the SLAs.

h) Severability & Waiver

a. if any provision of the Agreement or the SLAs, or any part thereof, shall be found by any court or administrative body of competent jurisdiction to be illegal, invalid or unenforceable the illegality, invalidity or unenforceability of such provision or part provision shall not affect the

other provisions of the Agreement or the SLAs or the remainder of the provisions in question which shall remain in full force & effect. The relevant Parties shall negotiate in good faith in order to agree to substitute for any illegal, invalid or unenforceable provision a valid & enforceable provision which achieves to the greatest extent possible the economic, legal & commercial objectives of the illegal, invalid or unenforceable provision or part provision within 7 working days.

b. No failure to exercise or enforce & no delay in exercising or enforcing on the part of either Party to the Agreement or the SLAs of any right, remedy or provision of the Agreement or the SLAs shall operate as a waiver of such right, remedy or provision in any future application nor shall any single or partial exercise or enforcement of any right, remedy or provision preclude any other or further exercise or enforcement of any other right, remedy or provision.

9.29. Applicable Law

The contract shall be governed by the laws and procedures prescribed by the Laws prevailing and in force in India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing. All legal disputes are subject to the jurisdiction of New Delhi courts only.

9.30. Attachments to the Agreement

i) Scope of Services for ADMA
ii) Detail Commercial proposal of the Selected Bidder accepted by ORGI
iii) Corrigendum Document published by ORGI subsequent to the Bid Document for this work
iv) RFP of ORGI for this work
v) Letter of Intent issued by ORGI to the Selected Bidder
vi) The Selected Bidder's "Pre-qualification Proposal", "Technical Proposal" and "Commercial Proposal" submitted in response to the RFP Document

SCHEDULE I - FORMAT FOR CHANGE COTROL NOTICE **CCN Number:** <<Number>>

Change of Control Details:

Before Change of Control	**After Change of Control (Surviving Entity)**
Legal Name of Entity:	Legal Name of Entity:
Registered Office Address:	Registered Office Address:
Date of Incorporation (as per Companies Act, 1956):	Date of Incorporation of Surviving Entity (as per Companies Act, 1956):
Annual Turnover (in INR) during last three Financial Years	Annual Turnover (in INR) during last three Financial Years
Entity Financial Net worth (measured as paid-up capital plus free reserves) (total assets minus total liabilities)	Entity Financial Net worth (measured as paid-up capital plus free reserves) (total assets minus total liabilities)

Name & Designation:
Signature
Name:
Designation:

Date:

SCHEDULE II- AUDIT, ACCESS AND REPORTING

PURPOSE

1. This Schedule details the audit, access and reporting rights and obligations of ORGI and/or its nominated agency and the ADMA and its agents, supplier etc. This Schedule is in addition to, and in derogation of, the audit rights and process provided in the RFP.

2. AUDIT NOTICE AND TIMING

2.1 As soon as reasonably practicable after the Effective Date, the Parties shall use their best endeavours to agree to a timetable for routine audits (Other than those mentioned as part of the mandatory requirements for successful delivery and acceptance of the System) during the Project Implementation Phase and the Operation and Maintenance Phase. Such timetable during the Implementation Phase, and thereafter during the operation Phase, ORGI shall conduct routine audits in accordance with such agreed timetable and shall not be required to give the ADMA any further notice of carrying out such audits.

2.2 ORGI may conduct non-timetabled audits at his/ her own discretion if it reasonably believes that such non-timetabled audits are necessary as a result of an act of fraud by the ADMA, a security violation, or breach of confidentiality obligations by the ADMA, provided that the requirement for such an audit is notified in writing to the ADMA a reasonable period time prior to the audit (taking into account the circumstances giving rise to the reasonable belief) stating in a reasonable level of detail the reasons for the requirement and the alleged facts on which the requirement is based. If the ADMA considers that the non-timetabled audit was not appropriate, the matter shall be referred to the escalation procedure as set out in the Project Governance and Management section of RFP.

2.3 Except as provided in 2.2 above, audits shall be conducted by with adequate notice of 2 weeks to the ADMA.

3. Access -The ADMA shall provide to ORGI and/or its nominated agency reasonable access to employees, suppliers, agents and third party facilities as detailed in the RFP, documents, records and systems reasonably required for audit and shall provide all such persons with routine assistance in connection with the audits and inspections. ORGI or its nominated agency shall have the right to copy and retain copies of any relevant records. The ADMA shall make every reasonable effort to co-operate with them.

4. AUDIT RIGHTS

ORGI and/or its nominated agency shall have the right to audit and inspect suppliers, agents, and third party facilities (as detailed in the RFP), data centre, documents, records, procedures and systems relating to the provision of the services, but only to the extent that they relate to the provision of the services, as shall be reasonably necessary to verify:

i. The security, integrity and availability of all data processed, held or conveyed by the Partner on behalf of ORGI and documentation related thereto;
ii. That the actual level of performance of the services is the same as specified in the SLA;
iii. That the ADMA has complied with the relevant technical standards, and has adequate internal controls in place; and

iv. The compliance of the ADMA with any other obligation under the Agreement.
v. Unless otherwise provided in the RFP, Security audit and implementation audit of the system shall be done once each year, the cost of which data centre, documents, records, procedures and systems relating to the provision of the services, but only to the extent that they relate to the provision of the services, as shall be reasonably necessary to verify:
    a. The security, integrity and availability of all data processed, held or conveyed by the Partner on behalf of ORGI and documentation related thereto;
    b. That the actual level of performance of the services is the same as specified in the SLA;
    c. That the ADMA has complied with the relevant technical standards, and has adequate internal controls in place; and
    d. The compliance of the ADMA with any other obligation under the Agreement.
    e. Unless otherwise provided in the RFP, Security audit and implementation audit of the system shall be done once each year, the cost of which by ORGI.

For the avoidance of doubt the audit rights under this Schedule shall not include access to the ADMA's profit margins or overheads, any confidential information relating to the ADMA' employees, or (iii) minutes of its internal Board or Board committee meetings including internal audit, or (iv) such other information of commercial-in-confidence nature which are not relevant to the Services associated with any obligation under the AGREEMENT.

5. ACTION AND REVIEW

5.1 Any change or amendment to the systems and procedures of the ADMA, where applicable arising from the audit report shall be agreed within thirty (30) calendar days from the submission of the said report.

5.2 Any discrepancies identified by any audit pursuant to this Schedule shall be immediately notified to ORGI or its nominated agency and the ADMA Project Manager who shall determine what action should be taken in respect of such discrepancies in accordance with the terms of the Agreement.

6. TERMS OF PAYMENT

Except as otherwise provided in RFP, ORGI shall bear the cost of any audits and inspections. The ADMA shall bear all costs for all reasonable assistance and information provided under the Agreement, the Project Implementation, Operation and Maintenance SLA by the ADMA pursuant to this Schedule.

7. RECORDS AND INFORMATION

For the purposes of audit in accordance with this Schedule, the ADMA shall maintain true and accurate records in connection with the provision of the services and the ADMA shall handover all the relevant records and documents upon the termination or expiry of the Agreement.

Annexure 1: Process of Registration of Births and Deaths and Issuance of Certificates

That RBD Act of 1969 in Chapter 3 provides for registration of Births and Deaths and Section 13 is pertaining to delayed registration of births and deaths and Sub-section (3) of above Section 13 empowers a Magistrate of the First Class to pass an order in case if birth or death is not registered within one year by its occurrence. Otherwise, initial registration of births and deaths within a period of one year remain with the authority as provided under Sub-section (1) and Sub-section (2) of Section 13 of the Act.

The Informant and Notifier are the points of dissemination regarding the information of occurrence of the event viz. birth, death and still birth. Hence there are certain general guidelines and processes which an Informant / Notifier and the Registrar needs to follow. The information is then sent to the Registrar or Sub-Registrar in prescribed form who records the event in the register. Documentary proof of the same is also submitted by the Informant to the Registrar which could be in the form of a discharge slip of the hospital (in case of an institutional delivery) or a letter of verification from Gram Pradhan / Ward Councillor.

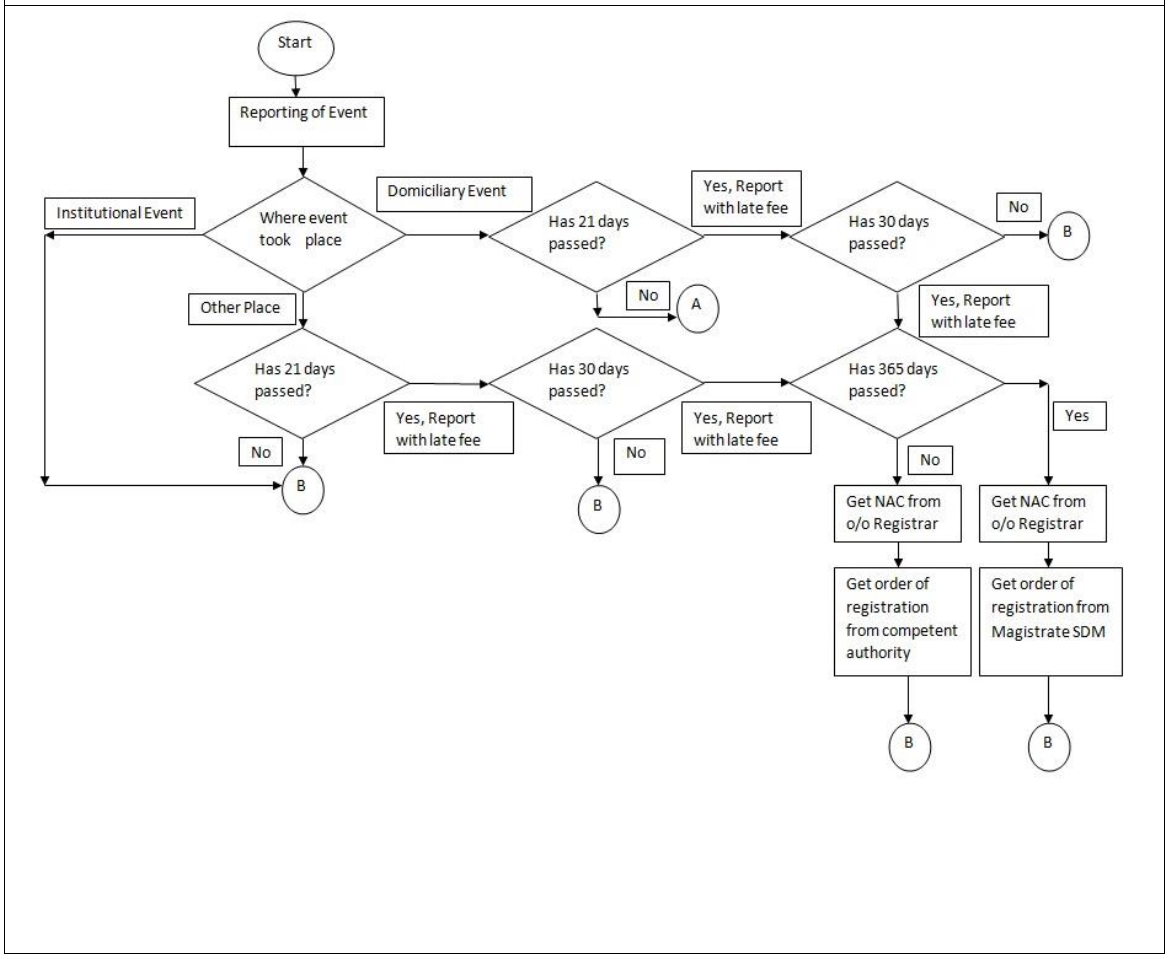
(i) General Process of Registration

Sl. No.	Process Description	Actor
1.	Informant / Notifier reports the event	Informant / Notifier
2.	The Registrar / Sub-Registrar receives the information and conducts any verification if need be	Registrar
3.	The Registrar / Sub-Registrar enters the information in the register with details of the event	Registrar
4.	The Registrar signs the certificate and makes provisions for the applicant concerned to collect it	Registrar
5.	In case of domiciliary event, it is the duty of the head of household to inform the event. If the event is reported within 21 days of the event, then the registration process will happen as mentioned from Sl. No. 1 to 4.	Informant
6.	In case of institutional event (hospitals), it is the duty of the medical officer in charge to inform the event. If the event is reported before 21 days of the event, then the registration process will happen as mentioned from Sl. No.1 to 4.	Informant
7.	If the information is provided to registrar after expiry of 21 days but within 30 days then the event shall be registered on payment of prescribed fees.	Informant
8.	If the information is provided to registrar after expiry of 30 days but within 1 Year then the event shall be registered only with the written permission of the prescribed authority with an affidavit	Informant

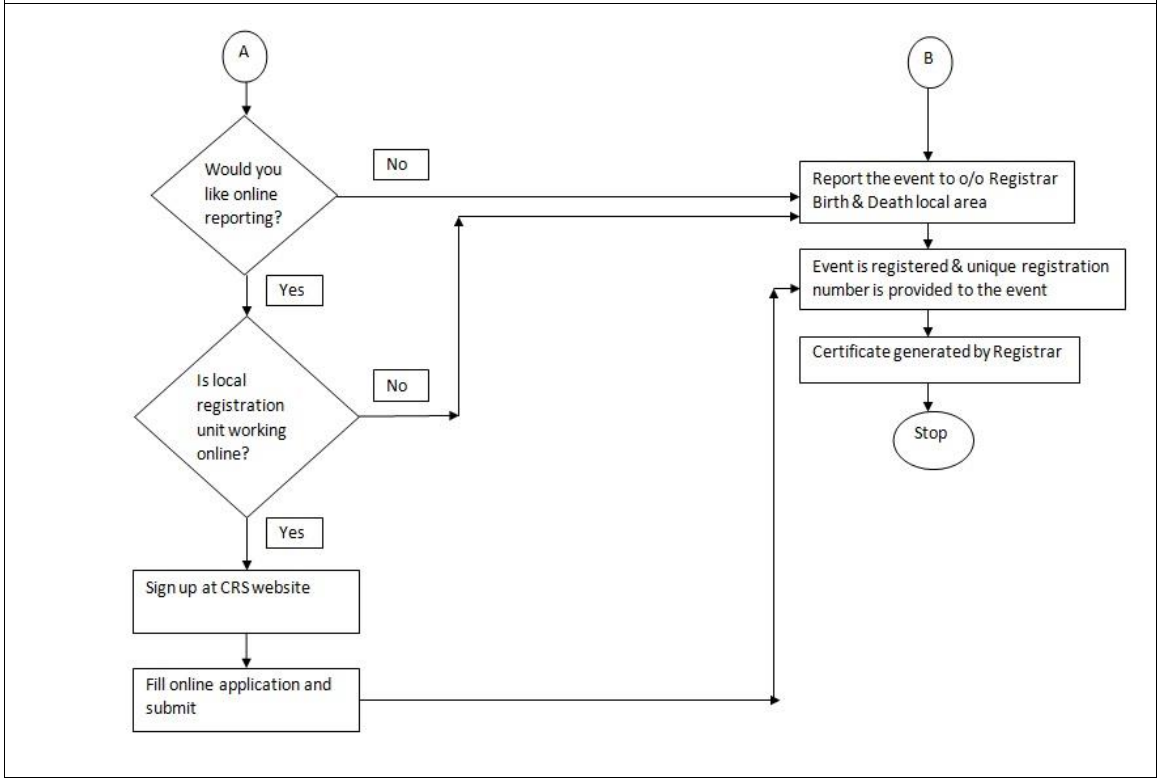
Sl. No.	Process Description	Actor
	made before a notary public and on a late payment fee as prescribed.	
9.	If the event is reported after 1 Year of its occurrence, then the event shall be registered only on an order made by a first class magistrate of the first class after his verification and on late payment fee as prescribed.	Informant

(ii) Detailed Functional Flow Diagram

Existing CRS Application – Birth, Death & Still Birth Registration



Existing CRS Application – Birth, Death & Still Birth Registration



Annexure 2: Sample Registration System Forms

Use Only Arabic Number as Indicated below:

0	1	2	3	4	5	6	7	8	9

SAMPLE REGISTRATION SYSTEM
Form No. 1 - HOUSE LIST

Page No. | Side - B

Updated by Sup.

State | Code | Villege/Town

Natural Division | Code | Rural-1 / Urban-2 | MDDS code

District | Code | Name of Sample Unit

Stratum | Unit Code (Ten digits)

S.No.	Status of house and household at Half Yearly Survey									Remarks
	20--- July-Dec (II HYS)			20--- Jan-June (I HYS)			20--- July-Dec (II HYS)			
	Status of the House	Status of the House-hold	If head is changed Write '1' If no Put '2'	Status of the House	Status of the House-hold	If head is changed Write '1' If no Put '2'	Status of the House	Status of the House-hold	If head is changed Write '1' If no Put '2'	
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1										
2										
3										
4										
5										
6										
7										
8										
9										
0										

Total Number of Houses

Residential/Partly resident Households

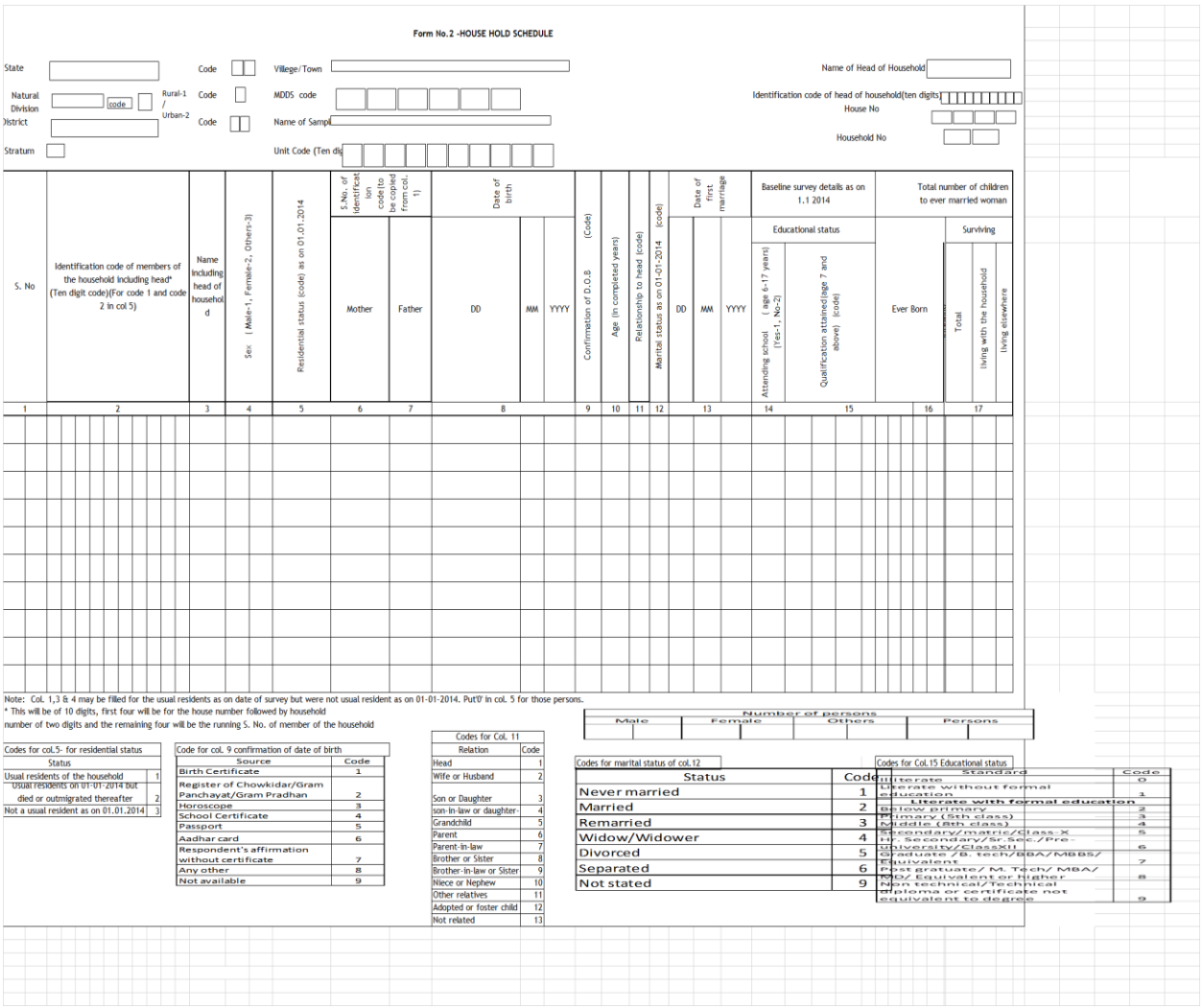
Sup. Signature

Name

Designation

Code

Date



Form No.2 -HOUSE HOLD SCHEDULE

State | Code | Village/Town | Name of Head of Household

Natural Division | code | Rural-1 / Urban-2 | Code | MDDS code | Identification code of head of household(ten digits)

District | Code | Name of Sampl | House No

Stratum | Unit Code (Ten dis | Household No

S. No	Identification code of members of the household including head* (Ten digit code)(For code 1 and code 2 in col 5)	Name including head of household	Sex (Male-1, Female-2, Others-3)	Residential status (code) as on 01.01.2014	S.No. of identification code to be copied from col. 1)		Date of birth			Confirmation of D.O.B (Code)	Age (in completed years)	Relationship to head (code)	Marital status as on 01-01-2014 (code)	Date of first marriage			Baseline survey details as on 1.1 2014		Total number of children to ever married woman			
																	Educational status			Surviving		
					Mother	Father	DD	MM	YYYY					DD	MM	YYYY	Attending school (age 6-17 years) (Yes-1, No-2)	Qualification attained(age 7 and above) (code)	Ever Born	Total	living with the household	living elsewhere
1	2	3	4	5	6	7	8			9	10	11	12	13			14	15	16	17		

Note: Col. 1,3 & 4 may be filled for the usual residents as on date of survey but were not usual resident as on 01-01-2014. Put'0' in col. 5 for those persons.

* This will be of 10 digits, first four will be for the house number followed by household number of two digits and the remaining four will be the running S. No. of member of the household

Number of persons

Male	Female	Others	Persons

Codes for col.5- for residential status

Status	
Usual residents of the household	1
Usual residents on 01-01-2014 but died or outmigrated thereafter	2
Not a usual resident as on 01.01.2014	3

Code for col. 9 confirmation of date of birth

Source	Code
Birth Certificate	1
Register of Chowkidar/Gram Panchayat/Gram Pradhan	2
Horoscope	3
School Certificate	4
Passport	5
Aadhar card	6
Respondent's affirmation without certificate	7
Any other	8
Not available	9

Codes for Col. 11

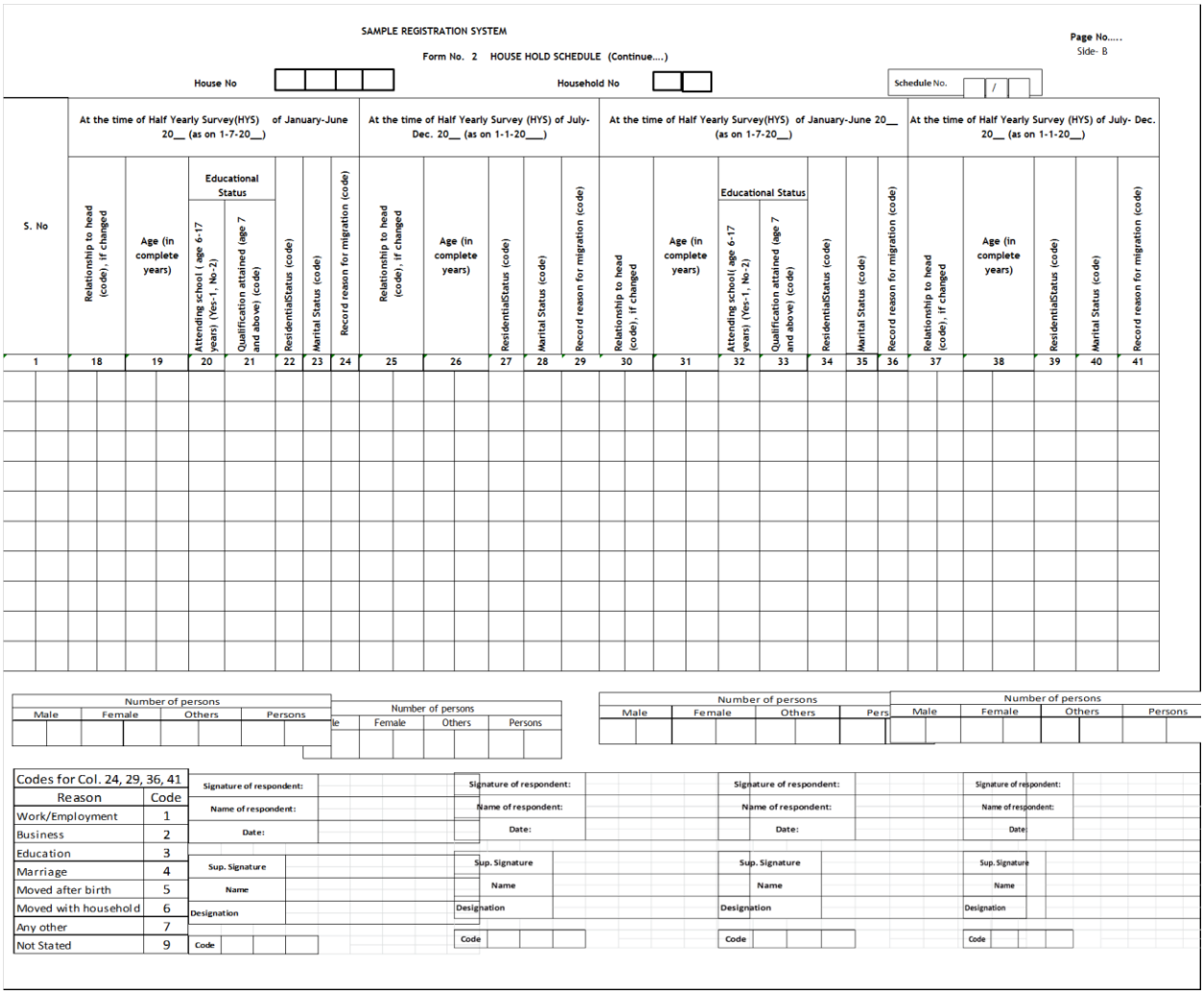
Relation	Code
Head	1
Wife or Husband	2
Son or Daughter	3
son-in-law or daughter-	4
Grandchild	5
Parent	6
Parent-in-law	7
Brother or Sister	8
Brother-in-law or Sister	9
Niece or Nephew	10
Other relatives	11
Adopted or foster child	12
Not related	13

Codes for marital status of col.12

Status	Code
Never married	1
Married	2
Remarried	3
Widow/Widower	4
Divorced	5
Separated	6
Not stated	9

Codes for Col.15 Educational status

Standard	Code
Illiterate	0
Literate without formal education	1
Literate with formal education	
Below primary	2
Primary (5th class)	3
Middle (8th class)	4
Secondary/matric/Class X	5
Hr. Secondary/Sr.Sec./Pre-University/ClassXII	6
Graduate /B. tech/BBA/MBBS/ Equivalent	7
Post gratuate/ M. Tech/ MBA/ MD/ Equivalent or higher	8
Non technical/Technical diploma or certificate not equivalent to degree	9



SAMPLE REGISTRATION SYSTEM

Page No.....
Side- B

Form No. 2 HOUSE HOLD SCHEDULE (Continue....)

House No | | | | | Household No | | Schedule No. | | / | |

S. No	At the time of Half Yearly Survey(HYS) of January-June 20__ (as on 1-7-20__)							At the time of Half Yearly Survey (HYS) of July-Dec. 20__ (as on 1-1-20___)					At the time of Half Yearly Survey(HYS) of January-June 20__ (as on 1-7-20__)							At the time of Half Yearly Survey (HYS) of July- Dec. 20__ (as on 1-1-20__)				
	Relationship to head (code), if changed	Age (in complete years)	Educational Status: Attending school (age 6-17 years) (Yes-1, No-2)	Educational Status: Qualification attained (age 7 and above) (code)	ResidentialStatus (code)	Marital Status (code)	Record reason for migration (code)	Relationship to head (code), if changed	Age (in complete years)	ResidentialStatus (code)	Marital Status (code)	Record reason for migration (code)	Relationship to head (code), if changed	Age (in complete years)	Educational Status: Attending school(age 6-17 years) (Yes-1, No-2)	Educational Status: Qualification attained (age 7 and above) (code)	ResidentialStatus (code)	Marital Status (code)	Record reason for migration (code)	Relationship to head (code), if changed	Age (in complete years)	ResidentialStatus (code)	Marital Status (code)	Record reason for migration (code)
1	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41

Number of persons																							
Male		Female		Others		Persons		Male		Female		Others		Persons		Male		Female		Others		Persons	

Codes for Col. 24, 29, 36, 41	
Reason	Code
Work/Employment	1
Business	2
Education	3
Marriage	4
Moved after birth	5
Moved with household	6
Any other	7
Not Stated	9

Signature of respondent:
Name of respondent:
Date:
Sup. Signature
Name
Designation
Code

Signature of respondent:
Name of respondent:
Date:
Sup. Signature
Name
Designation
Code

Signature of respondent:
Name of respondent:
Date:
Sup. Signature
Name
Designation
Code

Signature of respondent:
Name of respondent:
Date:
Sup. Signature
Name
Designation
Code

SAMPLE REGISTRATION SYSTEM

Form No.2A Side A

Socio-Economic Status Schedule

Col. 9: Religion of Head Code
(Hindu-1,Islam-2,Christian-3,Sikh-4,Buddhist-5, Jain-6, No given)

Col. 10: Caste/Tribe of Head Code
(SC-1, ST-2, Others-9)

Col. 12: Availability of Toilet
(In house-1, Community toilet-2, Open defecation (field, bush, jungle etc.)-3)

Col. 13: If Code -1 in Col. 12, Type of toilet facility
Water sealed unit-1/Not Water sealed unit -2

Col. 14: Main source of lighting
(Code given)

Col. 15: Type of fuel mainly used for cooking
(Code given)

Col. 16: Number of dwelling rooms in the household

Col. 17: Availability of Kitchen
(Code given)

Col. 18: Principal occupation of the household:
(Code given)

Code for Col. 11

Item	Code
Piped water into dwelling/yard/plot	01
Public tap/standpipe	02
Hand pump	03
Tube well or borehole	04
Protected dug well	05
unprotected dug well	06
Tanker/truck/cart with small tank	07
Surface water	08
Other sources	09
Bottled water/ RO Plant	10

Code for Col. 14

Main source of lighting

Name	Code
Electricity	1
Kerosene	2
Solar	3
Other oils	4
Any other	5
No lighting	6

Code for Col. 15

Type of fuel mainly used

Item	code
Firewood	1
Crop residue	2
Cow dung cake	3
Coal/lignite/charcoal	4
Kerosene	5
LPG/PNG	6
Electricity	7
Biogas	8
Any other	9
No cooking	0

Codes for Col. 17

Availability of kitchen

Item		code
Cooking inside the house	Has kitchen	1
	Does not have kitchen	2
Cooking outside the house	Has kitchen	3
	Does not have kitchen	4
No cooking		5

Code for Col. 18

Principal Occupation of the household

Name	Code
Salaried	1
Wage Earner	2
Agricultural Labourer	3
Cultivator	4
Professional/Business	5
Any other	9

SAMPLE REGISTRATION SYSTEM

Form 2A-Side B - Morbidity, Personal Habits Schedule

Sl. No.	Name including head of household	Whether suffering from any disability: Mental-1, Visual-2, Hearing-3, Speech-4, Locomotor-5, Multiple-6, Others-7, No	Whether diagnosed for any chronic disease during last one year as on date of survey : Yes-1, No-2	If code '1' in col.(19)**			Whether ailing during the last 15 days. Yes-1, No-2	If Code '1' in col.(23) (Code) Name of the disease	Is covered by a health scheme/ health insurance? (if Yes-1 or No-2)	If yes, type of health scheme/insurance (codes)	If age 5 years and	or persons of age 15 years or mo			ood Habi
				If code '1' in col. (19), Name of the disease (Code)	Duration of the disease (Code)	Source of the treatment (Code)					Occupation (during last one year as on date of survey) (Code)	Personal habits: Chew pan with tobacco-1, Chew pan without tobacco-2, Tobacco only-3,	Smoking: Usual-1, Occasional-2, Ex-smoker-3, Never-4, Not	Drink Alcohol: Usual-1, Occassional-2, Ex- drinker-3,	Have you consumed - Egg-1, Meat-2, Fish-3, Any combination-4, None of these-(pure
1	3	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															

Code for Col.(20)

Item	Code
Diabetes	01
Hypertension	02
Chronic heart disease	03
Myocardial infarction/Heart attack	04
Stroke/Cerebrovascular accident	05
Epilepsy	06
Asthma/Chronic respiratory disease	07
Goire/Thyroid disorder	08
Tuberculosis	09
Leprosy	10
Cancer-Respiratory system	11
Cancer-Gastrointestinal system	12
Cancer-Genitourinary system	13
Cancer-Breast	14
Renal stone	15
Chronic renal disease	16
Gall stone/ Chdecystitis	17
Chronic liver disease	18
Rheumatoid arthritis/Osteoarthritis	19
Chronic skin diseases/Psoriasis	20
Cataract	21
Glaucoma	22
Sinusitis, Tonsillitis	23
Fluorosis	24
Pyorrhea	25
Rheumatic fever/Rheumatic heart disease	26
Tumour (any type)	27
Blood Cancer/ Leukemia	28
Skin cancer	29
Piles, Anal fissure, Anal Fistula	30
Anaemia	31
Others(Hernia, Hydrocele, peptic ulcer etc.)	99

Code for Col. 21

Duration	Code
Less than 30 days	0
30 days to less than 3 months	1
3 months to less than 6 months	2
6 months and more	3

Code for Col. 22

Source of Treatment

	Item	Code
GOVERNMENT	Sub center	01
	PHC	02
	CHC	03
	UHC/UHP/UFWC	04
	Dispensary/Clinic	05
	Hospital	06
	AYUSH Hospital/Clinic	07
PRIVATE	Dispensary/Clinic	08
	Hospital	09
	AYUSH Hospital/Clinic	10
	NGO or Trust Hospital/Clinic	11
DOT Center		12
At Home		13
Others		99
No Treatment		00

Code for Col(24)

Item	Code
Diarrhoea	1
Dysentery	2
Acute respiratoryinfection	3
Jaundice with Fever	4
Fever with chill/rigors (malaria etc.)	5
Fever of short duration with rashes	6
Other type of fever	7
Reproductive Trach In fections(RTI)	8
Others	9

Code for Col. 26

Item	Code
Employee State Insurance Scheme (ESIS)	1
Rashtriya Swasthaya Bima Yojna (RSBY)	2
Central/State Government Health Scheme other than RSBY	3
Medical Reimbursement from Employer	4
Community Health Insurance Programme	5
Mediclaim	6
Others	7

Code for Col. 27

Main Occupation

Item		Code
Cultivator		01
Agricultural Wage labourer		02
Non-Agricultural Wage labourer		03
Self Employed (excluding Cultivators)	Own Account Worker	04
	Employer	05
	Unpaid Family Labourer	06
Regular Salaried/Wage Employee		07
Did not work but was seeking and/or available for work		08
Attending educational institution		09
Attending routine domestic chores, etc.		10
Beggar		11
Sex worker/Prostitude		12
Rentire, pensioner, other remittance recipients		13
Not able to work due to disability		14
Too old to work		15
Others		16

** If the household member is diagnosed for more than one disease, particulars of Col. 20, 21 & 22 for two more diseases are to be recorded.

SAMPLE REGISTRATION SYSTEM

Form 2B - Maternity History and Family Planning Practices Schedule

Separate Form for each Ever Married Women upto the age of 49 years

Survey Details as on 01.01.2014

State | Code | Villege/Town | Name of Head of Household

Natural Division | Code | Rural-1 /Urban-2 | MDDS Code | Identification code of head of household(ten digits)

District | Code | Name of Sample Unit | House NO

Stratum | Unit Code (Ten digits) | Household No

Name of ever married woman Identification Code*

Age

Q.1. Number of outcome of pregnancies							
LB		SB		Abortion		Total	

Q.2. Number of children					
born alive	surviving				
	Total		Living with the mother	Living elsewhere	

S.No	Pregnancy number (excluding current pregnancy)	Details of outcome of all pregnancies									For the latest outcome of pregnancy in last 3 years as on 31.12.2013					
		Outcome of pregnancy LB-1,SB-2, Abortion -3	If Code '1' in Col.3 Name of the child	Sex - (For LB) wirte Male-1, Female-2 and Others-3. (For Abortion and SB, code need not be entered)	Date of outcome of Pregnancy DD MM YYYY			Multiplicity of birth: Single-1, Multiple-2	Surviving-1, Not surviving-2 (Only for Code '1'in Col.3)	If Code 1 in Col. 8, write code 1 for child is living with mother and Code 2 for living elsewhere.	No. of ANC received	If no. of ANCs more than 0, place from where it received. (Code)	No. of months of pregnancy at the time of first ANC	Type of delivery (Code) (For LB & SB only)	Whether money received under JSY? (Yes-1, No-2)	Place of delivery (Domicile-1, Institutional-2, others-3)
					Day	Month	Year									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15
1																
2																
3																
4																
5																
6																
7																
8																
9																
0																

Col. 16: Have you ever heard of any contraceptive method to avoid pregnancy? Yes-1 No-2

Col. 17: If 'Yes' in Col. 16, whether the couple is practicing any method? Yes-1 No-2
(For currently married women age upto 49 years)

Col. 18: If 'Yes' in Col. 17, name the method/contraceptive used (Code)

FORM 3: PREGNANCY STATUS OF WOMEN

(For currently married women age upto 49 years)

Col. 19: Current pregnancy Status write '1' for pregnant and '2' for not pregnant
(If Code 2, skip to the next EMW, if any)

Col. 20: If Code '1' in Col.19, duration of pregnancy in completed months

Col. 21: Expected month of outcome of pregnancy MMYYYY

Code for Col. 11		
Source of ANC		
	Item	Code
GOVERNMENT	Sub center	01
	PHC	02
	CHC	03
	UHC/UHP/UFWC	04
	Dispensary/Clinic	05
	Hospital	06
	AYUSH Hospital/Clinic	07
PRIVATE	Dispensary/Clinic	08
	Hospital	09
	AYUSH Hospital/Clinic	10
	NGO or Trust Hospital/	11
At Home		12
Aanganbadi		13
Others		99

Code for Col. 13	
Type of delivery	
Item	code
Normal	1
Caesarean	2
Assisted	3

Code for Col.18	
Contraceptive methods	
Code	Item
	Modern Methods
1	Tubectomy
2	Vasectomy
3	Copper-T/IUD
4	Pills (Daily)
5	Pills (Weekly)
6	Emergency Contraceptive Pill
7	Condom/ Nirodh
8	Injectable Contraceptives
9	Other Modern Method
	Traditional Methods
10	Contraceptive Herbs
11	Rhythm/periodic abstinence
12	Withdrawal
13	Lactational Amenorrhoea Method (LAM)
14	Other Traditional Method

Use Only Arabic Numbers as Indicated below:

0	1	2	3	4	5	6	7	8	9

SAMPLE REGISTRATION SYSTEM
Form No. 3 - Pregnancy status of women
For currently married women up to the age of 49 years

Page No.

Updated by Sup. & PTE.

State ____ Code ____ Village/Town ____

Natural Division ____ code ____ Rural-1 / Urban-2 ____ MDDS code ____

District ____ Code ____ Name of Sample Unit ____

Stratum ____ Unit Code (Ten digits) ____

Sl. No.	Date of Recording	SRS House No.	SRS household No.	Name of head of household	Currently married women		Current pregnancy Status write '1' for pregnant **and '2' for** if code '1' in Col.8.	duration of pregnancy in completed months	Expected month of outcome of pregnancy MMYYYY		Outcome of pregnancy (LB-1, SB-2, Abortion-recorded by ENU-1, Sup-2	Date of outcome of pregnancy DDMMYYYY	whether any of the spouse has undergone sterilization? (codes:	Remarks
					Name	Identification code *			Month	Year				
1	2		3	4	5	6	7	8	9	10		11	12	13	14	15
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

Page No.....

SAMPLE REGISTRATION SYSTEM
FORM No. 4 : OUTCOME OF PREGNANCY RECORDED BY ENUMERATOR

January-June, 20____
July-December, 20____

State_____
District_____
Village/Town_____
Name of sample unit:_____
Unit Code (ten digits)_____

S.No.	SRS House No. (four digits)	SRS Household No. (two digits)	Head of the Household		Details of the pregnant woman				Details of outcome of pregnancy							Type of attention at delivery/abortion (Code)	Whether any of the spouse has undergone sterilization, (Wife-1, Husband-2, None-3)	First information source (Code)	Date of Enumeration (DD/MM/YYYY)	Remarks
			Name	Identification Code* (ten digits)	Name	Identification Code** (ten digits)	Relationship to Head (Code)	Residential status (Code)	Present age (in completed years)	Place of LB/SB/Abortion (Institutional-1, Domiciliary-2, Others-3)	LB/SB/Abortion (LB-1, SB-2, Abortion-3)	Date of LB/SB/Abortion (DD/MM/YYYY)	Multiplicity of birth (Single-1, Multiple-2)	Sex (M-1, F-2, O-3)	Birth weight (.....Kg.....gm)					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
0																				

*: As given in Form No.1
** : As given in Form No.3 . In case it is not available in Form No.3,record '-'.
Relationship Code (Col.8) : Head -01, Wife -02, Daughter-03, Daughter-in-law-04, Grand daughter-05, Mother-06, Mother-in-law-07, Sister-08, Sister-in-law-09, Niece -10, Other relatives-11, Adopted/foster daughter/daughter through surrogacy -12, Not related-13
Residential status Code(Col.9) : URP-1, URA-2, IP-3, IA-4, V-5
Type of attention at delivery/abortion Code (Col. 17): Govt. Sub Center-01, PHC-02, CHC-03, UHC/UHP/UFWC-04, Govt. Dispensary/Clinic-05,Govt. Hospital-06, Govt. AYUSH Hospital/Clinic-07, Private Dispensary/Clinic-08, Private Hospital-09, Private AYUSH Hospital/Clinic-10, Private-NGO/Trust Hospital/Clinic-11, Doctor-12, Nurse/ANM/LHV-13, Trained Dai-14,Untrained Dai-15, Family Members/Relatives/Friends-16, Others-17, None-18
First information source Code(Col.19): Household visit by Enumerator-1, Household-2, Village Headman-3, Chowkidar-4, Barber-5, Priest/Maulvi/Padri -6, Dai/ANM/Anganwadi Worker -7, Quarterly Visits (QV) - 8, Others-9

Signature_____
Name_____

Page No.....

SAMPLE REGISTRATION SYSTEM
FORM No.5 : DEATHS RECORDED BY ENUMERATOR

January-June, 20____
July-December, 20____

State_____
District_____
Village/Town_____

Name of sample Unit_____
Unit Code (ten digits)_____

S. No.	SRS House No. (four digits)	SRS Household No. (two digits)	Head of the Household		Particulars of the deceased							Age at death						
			Name	Identification Code* (ten digits)	Name	Identification Code** (ten digits)	Relationship to Head (Code)	Place of death (Institutional-1, Domiciliary-2,Others-3)	Residential status (Code)	Date of death (DD/MM/YYYY)	Sex (M-1, F-2, O-3)	Less than 1 month (in days)	Less than 12 months (in months)	One year and above (in years)	Type of medical attention before death (Code)		First information source (Code)	Date of Enumeration (DD/MM/YYYY)	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		(17)	(18)	(19)
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
0																			

* : As given in Form No.1

**: If the identification code of the deceased is not available in Form No.1 & Form No.3,Record '-' .

Relationship Code (Col.8) : Head -01, Wife or Husband-02, Son or Daughter-03, Son-in-law or Daughter-in-law-04, Grand child-05, Parent-06, Parent-in-law-07, Brother or Sister-08, Brother-in-law or Sister-in-law-09, Niece or Nephew-10, Other relatives-11, Adopted/foster child/children through surrogacy -12, Not related-13

Residential status Code (Col.10) : URP-1, URA-2, IP-3, IA-4, V-5

Type of medical attention before death Code (Col. 16): Govt. Sub Center-01, PHC-02, CHC-03, UHC/UHP/UFWC-04, Govt. Dispensary/Clinic-05 Govt. Hospital-06, Govt. AYUSH Hospital/Clinic-07, Private Dispensary/Clinic-08, Private Hospital-09, Private AYUSH Hospital/Clinic-10, Private-NGO/Trust Hospital/Clinic-11, Qualified Professionals-12, Untrained Fuctionary-13, Others-14, No Medical attention-15

First information source Code(Col.17): Household visit by Enumerator-1, Household-2, Village Headman-3, Chowkidar-4, Barber-5, Priest/Maulvi/Padri -6, Dai/ANM/Anganwadi Worker -7, Quarterly Visits (QV) - 8, Others-9

Signature_____

SAMPLE REGISTRATION SYSTEM

FORM No.6 : MONTHLY REPORT OF OUTCOME OF PREGNANCY

State_____ For the month of_____20_____

District_____ Name of Sample Unit _____

Village/Town_____ Unit Code (ten digits)_____

S.No.	SRS House No. (four digits)	SRS Household No. (two digits)	Head of the Household		Details of the pregnant woman					Details of outcome of pregnancy										
			Name	Identification Code (ten digits)	Name	Identification Code (ten digits)	Relationship to Head (Code)	Residential status (Code)	Present age (in completed years)	Place of LB/SB/Abortion (Institutional-1, Domiciliary-2, Others-3)	LB/SB/Abortion (LB-1, SB-2, Abortion-3)	Date of LB/SB (DD/MM/YYYY)	Multiplicity of birth (Single-1,Multiple-2)	Sex (M-1,F-2,O-3)	Birth Weight (...Kg...gm)	Type of attention at delivery/abortion (code)	Whether any of the spouse has undergone sterilization, (Wife-1,Husband-2,None-3)	First information source (code)	Date of Enumeration (DD/MM/YYYY)	Sex (M-1, F-2, O-3)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
0																				

* : As given in Form No.1

**:As given in form no 3:in case is not available in form no.3 record

Relationship Code (Col.8) : Head -01, Wife-02, Daughter-03, Daughter-in-law-04, Grand Daughter -05,Mother-06,Mother-in-law-07 Sister-08,Sister-in-law-09, Niece -10, Other relatives-11, Adopted/foster daughter/daughter through surrogacy -12, Not related-13

Signature_____

Residential status Code (Col.9) : URP-1, URA-2, IP-3, IA-4, V-5

Type ofattention atdelivery/abortion Code (Col. 17): Govt. Sub Center-01, PHC-02, CHC-03, UHC/UHP/UFWC-04, Govt. Dispensary/Clinic-Name _____ Govt. AYUSH Hospital/Clinic-07, Private Dispensary/Clinic-08, Private Hospital-09, Private AYUSH Hospital/Clinic-10, Private-NGO/Trust Hospital/Clinic-11,doctors-12, nurse/ANM/LHV-13, Trained dai-14, untrained dai-15,family members/relative Date_____

First information source Code(Col.19): Household visit by Enumerator-1, Household-2, Village Headman-3, Chowkidar-4, Barber-5, Priest/Maulvi/Padri -6, Dai/ANM/Anganwadi Worker -7, Quarterly Visits (QV) - 8, Others-9

SAMPLE REGISTRATION SYSTEM
FORM No.7 : MONTHLY REPORT OF DEATHS

State_____ For the month of_____20_____
District_____ Name of Sample Unit_____
Village/Town_____ Unit Code (ten digits)_____

S.No.	SRS House No. (four digits)	SRS Household No. (two digits)	ead of the Househo		Particulars of the deceased									
			Name	Identification Code (ten digits)	Name	Identification Code (ten digits)	Relationship to Head (Code)	Place of death (Institutional-1, Domiciliary-2, others-3)	Residential status (Code)	Date of death (DD/MM/YYYY)	Sex (M-1, F-2, O-3)	Age at death		
												Less than 1 month (in days)	Less than 12 months (in months)	'One year and above (in years)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
1														
2														
3														
4														
5														
6														
7														
8														
9														
0														

Note: Copy the particulars from relevent columns of Form No.5

Death events	Males	Females	Others	Total
Total deaths for the current				
Total cumulative deaths				
Total cumulative deaths				

Signature_____
Name _____
Date_____

SAMPLE REGISTRATION SYSTEM

FORM No. 8 : UNITWISE CONSOLIDATED MONTHLY REPORT

To be despatched to ORGI by the 2nd week of the following month

State..... Report for the month of.....

S.No.	Sample Unit Code	Population as on 1st January/ July	Live Births		Still Births		Abortion		Deaths	Infant Deaths			
			URP/URA/IP/IA	Visitors	URP/URA/IP/IA	Visitors	URP/URA/IP/IA	Visitors	URP/URA/IP/IA	Visitors	URP/URA/IP/IA	Visitors	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1													
2													
3													
4													
5													
6													
7													
8													
9													
0													
1													
2													
3													
4													
5													
6													
7													
8													
9													
0													
	Total												

Signature_____

Name_____

Designation with code_

Date_____

SAMPLE REGISTRATION SYSTEM

FORM No. 9 : OUTCOME OF PREGNANCY RECORDED BY SUPERVISOR

January-June, 20_____(I HYS)

July-December, 20_____(II HYS)

State_____

District_____ Name of Sample Unit_____

Vilage/Town_____ Unit Code (ten digits)_____

S. No	SRS House No. (three digits)	SRS Household No. (two digits)	Head of the Household		Details of pregnant woman						Details of outcome of pregnancy							Details of previous live		Order of current live birth	Interval between previous and current live birth (in months)	Type of attention at delivery/abortion (Code)	Whether any of the spouse has undergone sterilization (Wife-1, Husband-2, None-3)	Matching Remarks (Code)	Reverification Remarks (Correct-1, False-2)
			Name	Identification Code* (nine digits)	Name	Identification Code* (nine digits)	Relationship to Head (Code)	Residential status (Code)	Present age (in completed years)	Level of education*	Place of LB/SB/Abortion (Institutional-1, Domiciliary-2)	LB/SB/Abortion (LB-1, SB-2, Abortion-3)	Date of LB/SB/Abortion (DD/MM/YY)	Multiciplicity of birth (Single-1, Multiple-2)	Sex (M-1, F-2, O-3)	Birth weight (.....Kg.....gm)	Is the birth registered ? (Yes-1, No-2, Not known-3)	Previous child (alive-1, dead-2)	Date of birth of the previous child (DD/MM/YY)						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
0																									

* : As given in Form No. 2

Relationship to head Code(Col.8) : Head -01, Wife -02, Daughter-03, Daughter-in-law-04, Grand daughter-05, Mother-06, Mother-in-law-07, Sister-08, Sister-in-law-09, Niece/Nephew-10, Other relatives-11, Adopted/foster child-12, Not related-13

Residential status Code (Col.9): URP-1, URA-2, IP-3, IA-4, V-5

Type of attention at delivery/abortion Code(Col.23): Govt. hospital-1, Private hospital-2, Qualified professional-3, Untrained functiona

Matching Remarks Code (Col.25): Fully matched-1, Partially matched-2, Unmatched-3

Signature_____

Name_____

Code_____

Date_____

SAMPLE REGISTRATION SYSTEM

FORM No.10: DEATHS RECORDED BY SUPERVISOR

January-June, 20____(I HYS)

July-December,20___(II HYS)

State_____

District_____

Vilage/Town_____

Name of Sample Unit_____

Unit Code (ten digits)_____

S. No.	SRS House No. (three digits)	SRS Household No. (two digits)	Head of the Household		Particulars of the deceased								Age at death			Order of birth in case of infant death	Type of medical attention at the time of death (Code)	Matching Remarks (Code)	Reverification Remarks (Correct - 1, False - 2)
			Name	Identification Code* (nine digits)	Name	Identification Code* (nine digits)	Relationship to Head (Code*)	Place of death (Institutional-1, Domiciliary-2)	Residential status (Code)	Date of death (DD/MM/YY)	Sex (M-1, F-2, O-3)	Is the death registered ? (Yes-1, No-2, Not known-3)	Below one month (in days)	Below 12 months (in months)	1 year and above (in years)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
0																			

* : As given in Form No.2

Residential status Code (Col.10): URP-1, URA-2, IP-3, IA-4, V-5

Type of medical attention at death Code (Col.18): Govt. hospital-1, Private hospital-2, Qualified professional-3, Untrained functionary-4, Others-9

Matching Remarks Code (Col.19): Fully matched-1, Partially matched-2, Unmatched-3

Signature_____

Name_____

Code_____

Date_____

January- December(Both HYS)

FORM No.11: FINALISED LIST OF OUTCOME OF PREGNANCY

(Finalised after matching of Forms 4 & 9 and reverification)

State: Code Village/ Town:

Natural Division: Rural-1/ Urban-2: MDDS:

District: Code: Name of sample unit:

Stratum: Unit Code

S.NO.	SRS. House NO.	SRS. Household NO.	Name Of head of household	Identification code of head	Namne of pregnant women	Identification code of pregnant women	Relationship to Head(code	Residential status (Code)	Present age in completed years	Level of education	Type of attention at delivery/abortion	LB/SB/Abortion (LB-1, SB-2, Abortion-3)	Date of birth, if LB/SB	Birth weight	Sex (M-1, F-2, O-3)	Date of abortion, (if abortion)	Multiciplicity of birth (Single-1,Multiple-2)	Place of LB/SB/abortion (Institutional-1, Domiciliary-2, Other-3)	Order of current live birth	Previous child alive-1, dead-2	Date of birth of the previous child	Interval between previous and current live birth(in month)	Wheather any of the spouse has undergone sterilization(Wife-1, Husband-2)	Events netted by	
1																									
2																									
3																									
4																									
5																									
6																									
7																									

Type of attention at delivery/abortion code : Govt. Sub Center1, PHC2, CHC3, UHC/UHP/UFWC4, Govt. Dispensary/Clinic5,Govt. Hospital6, Govt. AYUSH Hospital/Clinic7, Private Dispensary/Clinic8, Private Hospital9, Private AYUSH Hospital/Clinic10, Private NGO / Trust Hospital/Clinic11, Doctor12, Nurse/ANM/LHV13, Trained Dai14, Untrained Dai15, Family Members/Relatives/Friends16, Others17, None18

Residential status code : URP1, URA2, IP3, IA4

Events Netted By :

1. Recorded by both Enumerator and Supervisor
2. Recorded by Enumerator and missed by Supervisor
3. Missed by Enumerator and recorded by Supervisor
4. Correct Events missed by both Enumerator and Supervisor

SAMPLE REGISTRATION SYSTEM

FORM No.12: FINALISED LIST OF DEATHS

(Finalised after matching of Forms 5 and 10 and reverification) January-December (Both HYS)

State:	Code:	Village/Town:	
Natural Division:	Rural-1/Urban-2:	MDDS:	
District:	Code:	Name of Sample Unit:	
Startum:	Unit Code:		

S.No.	SRS House No	SRS Household No.	Name of the head of the household	Name of the deceased	Identification code*of the deceased	Relationship to Head(code*)	Name of Father/Husband of deceased	Sex (M-1,F-2,O-3)	Residential status (code)	Date of Death	Is the death registered Yes-1, No-2, Not Known-3	Place of death(Institutional-1, Domiciliary-2, others-3)	If age at death Below one months (in days)	If age at death Below 12 months (in months)	If age at death one year and above (in years)	Order of birth incase of infant death	Type of medical attention at the time of death (code)	Events netted by
				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
0																		

Relationship Code : Head1, Wife2,Son/Daughter3,Soninlaw/Daughterinlaw4,Grand child5,Parent6,Parentinlaw7,relatives11,Adopted/Foster child12,Not related13

Brother/Sister8,Sisterinlaw9,Niece10,Other Residential status Code : URP1,URA2,IP3,IA4

Type of medical attention at the time of death Code : Govt. Sub center1,PHC2,CHC3,UHC/UHP4,Govt. Dispensary/Clinic5,Govt. Hospital6,Govt.AyushHospital/Clinic7,Pvt. Dispensary/Clinic8,Pvt. Hospital9,Pvt. Ayush Hospital/Clinic10,Pvt. NGO/Tust Hospital11,Qualified Proffesionals12,UntrainedFunctionary13,Others14,No Medical Attention15

Events Netted By :

1. Recorded by both Enumerator and Supervisor
2. Recorded by Enumerator and missed by Supervisor
3. Missed by Enumerator and recorded by Supervisor
4. Correct Events missed by both Enumerator and Supervisor

STATE	
HYS PERIOD	
YEAR	

JANUARY TO DECEMBER(BOTH HYS)

FORM NO.13: RESULTS OF THE HALF YEARLY SURVEY FOR OUTCOME OF PREGNANCY

	LIVE BIRTH						STILL BIRTH						ABORTION				
Sample Unit Code	SEX	TOTAL (COL.4,5,6,7)	RECORDED BY BOTH ENUMERATOR & SUPERVISER	RECORDED BY ENUMERATOER &MISSED BY SUPERVISOR	MISSED BY ENUMERATOR & RECORDED BY SUPERVISOR	BOTH ENUMERATOR & SUPERVISIOR	TOTAL (COL.,9,10,11,12)	RECORDED BY BOTH ENUMERATOER & SUPERVISER	RECORDED BY ENUMERATOER & MISSED BY SUPERVISOR	MISSED BY ENUMERATOR & RECORDED BY SUPERVISOR	CORRECT EVENTS MISSED BY BOTH ENUMERATOR & SUPERVISIOR	TOTAL (COL.,14,15,16,17)	RECORDED BY BOTH ENUMERATOER & SUPERVISER	RECORDED BY ENUMERATOER & MISSED BY SUPERVISOR	MISSED BY ENUMERATOR & RECORDED BY SUPERVISOR	CORRECT EVENTS MISSED BY BOTH ENUMERATOR &	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2.42E+09																	

SIGNATURE:	
NAME:	
DESIGNATION WITH CODE:	
DATE:	

STATE	
HYS PERIOD	
YEAR	

FORM-14

JANUARY TO DECEMBER(BOTH HYS)

FORM NO.14: RESULTS OF THE HALF YEARLY SURVEY FOR DEATHS

	DEATHS						INFANT DEATHS					
Sample Unit Code	SEX	TOTAL(COL.4,5,6,7)	RECORDED BY BOTH ENUMERATOR & SUPERVISOR	RECORDED BY ENUMERATOR &MISSED BY SUPERVISOR	MISSED BY ENUMERATOR &RECORDED BY SUPERVISOR	CORRECT EVENTS MISSED BY BOTH ENUMERATOR & SUPERVISOR	TOTAL(COL,9,10,11,12)	RECORDED BY BOTH ENUMERATOR & SUPERVISOR	RECORDED BY BOTH ENUMERATOR &MISSED BY SUPERVISOR	MISSED BY ENUMERATOR &RECORDED BY SUPERVISOR	CORRECT EVENTS MISSED BY BOTH ENUMERATOR & SUPERVISOR	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13

SIGNATURE:
NAME:
DESIGNATION WITH CODE:
DATE:

SAMPLE REGISTRATION SYSTEM

FORM No.15 : DISTRIBUTION OF USUAL RESIDENT POPULATION OF THE SAMPLE UNIT BY AGE, SEX AND MARITAL STATUS

State_____

District_____ Name of Sample Unit..... **January-December,2014(Both HYS)**

Vilage/Town..... Unit Code .....

Total No. of houses_____

Total No. of UR households_____

Broad age group	Never Married			Married		Remarried		Widow/widower		Divorced		Seperated		Not stated		All categories			
	Males	Females	Others	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Others	Persons
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Below 1																			
1-4																			
5-9																			
10-14																			
15-19																			
20-24																			
25-29																			
30-34																			
35-39																			
40-44																			
45-49																			
15-49																			
50-54																			
55-59																			
60-64																			
65-69																			
70-74																			
75-79																			
80-84																			
85+																			
All ages																			

Signature_____

Name_____

Designation with code_____

Date_____

SAMPLE REGISTRATION SYSTEM

FORM No.16 : DISTRIBUTION OF TOTAL FEMALE POPULATION BY BROAD AGE-GROUP, SEX AND LEVEL OF EDUCATION

January-December,2014 (Both HYS)

State_____ Name of Sample Unit.....

District_____ Unit Code.....

Vilage/Town.....

Broad age-group of women	Population by level of education									
	Illiterate	Literate without formal education	Below Primary	Primary	Middle	Secondary/ Metric (Class-X)	Higher Secondary/Sr.Secondary/Pre-Univ.(Class-XII)	Graduate and above	Not stated	All Categories
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Below 15										
15-19										
20-24										
25-29										
30-34										
35-39										
40-44										
45-49										
50 & above										
All ages										

SAMPLE REGISTRATION SYSTEM

FORM No.17 : NUMBER OF FEMALES WHO GOT MARRIED BY AGE AT EFFECTIVE MARRIAGE

State_____ January-December, 2014(Both HYS)

Name of Sample Unit._____

Unit Code (10 digits) _____

e at effective marria	No. of Females		Age at effective marria	No. of Females
(1)	(2)		(3)	(4)
Below 10			30	
10			31	
11			32	
12			33	
13			34	
14			35	
15			36	
16			37	
17			38	
18			39	
19			40	
20			41	
21			42	
22			43	
23			44	
24			45	
25			46	
26			47	
27			48	
28			49	
29			50+	
Sub. Total			Sub. Total	
			Grand Total	

Signature_____

Name_____

Designation with code_____

Date_____



SAMPLE REGISTRATION SYSTEM
Form No. 0 - VILLAGE/URBAN SCHEDULE

Name of State | State Code | Name of District | District Code
Name of Village/town in which sample unit is located | MDDS Code
Name of sample unit (for urban unit only) | Sample Unit Code Number

S.No. 1. Total population of the Sample Unit at the time of baseline survey
S.No. 2 Total number of Houses: Residential/Partly residential | Non residential houses | Vacant houses
S.No. 3. Type of structure of Houses where the household lives: Number of pucca houses | Number of semi-pucca houses | Number of Kutcha houses
S.No. 4. Total Number of Households in the Sample Unit

Q. No. 1 to 14 will only be enabled for Rural units.
Q.No.1 . Name and distance of the nearest town: Name / Distance (in kms.)
Q.No.2 . Whether the village is connected by pucca road? Yes-1/No-2
Q.No.3. If code-2 in Q. No.2, distance in Kms from the nearest pucca road
Q. No. 4. Whether village has Bus Stop? Yes-1/No-2
Q.No. 6. Whether village has Railway Station? Yes-1/No-2
Q.No. 5. If code-2, in Q. No.4, nearest Bus Stop: Name / Distance (in kms.)
Q.No.7. If code-2 in Q. No.6, nearest Railway Station: Name / Distance (in kms.)

Q.No. 8. Main source of irrigation in the village
Enter appropriate code:

For Q. No. 8 Main source of irrigation in the village: Name	Code
River	1
Canal	2
Tube well	3
Well	4
Tank/Pond	5
Any other	9
Not available	0

Q.No.9. Type of facility available for delivery within the village

Col. 1		Col. 2. Facility for delivery	Col. 3 yes-1/ No-2
1	GOVERNMENT	Sub-centre	
2		PHC	
3		CHC	
4		UHC/UHP/UFWC	
5		Dispensary/Clinic	
6		Hospital	
7		AYUSH Hospital/Clinic	
8	PRIVATE	Dispensary/Clinic	
9		Hospital	
10		AYUSH Hospital/Clinic	
11		NGO or Trust Hospital/Clinic	
12		ANM/LHV/ASHA	
13		Traditional Dai	
14		Others	

Q.No. 10 Whether the village is electrified? Yes-1/No-2
Q.No. 11. Whether the village has access to:

Col. 1 S.No.	Col. 2 Name of facility	Col. 3. Yes-1/No-2
1	News paper	
2	Telephone/Mobile phone	
3	Television	
4	Internet	
5	Bank/ATM	
6	Post office	
7	Agricultral Society	
8	Public distributing system	

Q. No. 12. Is there any Anganwadi Centre within the village? Yes-1/No-2
Q.No. 13 Is there any nutritional health programme for children in the village? Yes-1/No-2
Q. No. 14. Whether the village has cremation/burial ground? Yes-1/No-2

Q. No. 15-26 will only be enabled for Urban units.
Q. No. 15. Main source of lighting in the Sample Unit
Enter appropriate code:

For Q.No.15 Name	Code
Electricity	1
Kerosene	2
Solar	3
Other oils	4
Any other	5
No lighting	6

Q.No. 16. Whether the Sample Unit is a slum? Yes-1/No-2
Q. No. 17. If code 1 in Q. No. 16, whether notified slum? Yes-1/No-2
Q. No. 18. If code-1 in Q.No. 17, number of community toilets

Q.No.19: Type of Toilet facility (maximum) in the sample un
Enter appropriate code:

Item	Code
Water seal latrine* (In house)	1
Not water seal latrine(In house)	2
Community toilet	3
Open defecation (field, bush, jungle etc.):	4

Q. No. 20. Whether garbage disposal service is available in the Sample Yes-1/No-2
Q. No. 21. Whether the fire fighting service is available in the Yes-1/No-2
Q. No. 22. Whether banking facility is available in the town/CT? Yes-1/No-2
Q. No. 23. If No in Q.No. 22, name the nearest Banking facility: Name of Place
Q. No.25. Whether the sample unit has public distribution system Yes-1/No-2
Q. No. 24. Distance to the nearest banking facility from the sample ur: Distance from the Sample Unit (in kms)
Q. No. 26. Whether creche facility is available in the sample unit Yes-1/No-2

The following questions will be asked for Rural and Urban units.
Q. No. 27. Principal occupation of the persons living in the Sample Un
Enter appropriate code:

Item	Code
Salaried	1
Wage earner	2
Agricultural laboure	3
Cultivator	4
Professional/Busine	5
Any other	6

Q.No. 28. Main source of drinking water in the Village /urban san
Enter appropriate code:

Main source of drinking water	Code
Piped water into	1
Public tap/standpipe	2
Hand pump	3
Tube well or Borehole	4
Protected dug well	5
Unprotected dug well	6
Tanker/ truck/cart with small	7
Surface water	8
Other Sources	9
Bottled water/ RO Plant	10
Not available	0

Q.No. 29 (only enable for Rural unit).
If Code 0 in Q. No. 28,
Name of place from the where drinking water is
and distance in Kms.

Q. No. 30. Availability of Educational facility in the village/town/census town in which the unit is situated:

S. No.	Educational facility	Yes-1/ No-2	If code 2 in col. 3, the nearest place where the facility is available	Distance from the village/
(1)	(2)	(3)	(4)	(5)
1	Primary			
2	Middle			
3	High / secondary			
4	Higher/Senior Secondary			
5	Graduate/ Post Graduate			
6	Adult Education Classes			
7	Others			

Q.No.31 . Type of Health facility available within the village/town/CT in which the unit is situated:

Col. 1		Col. 2. Health Facility	Col. 3 yes-1/ No-2
1	GOVERNMENT	Sub-centre	
2		PHC	
3		CHC	
4		UHC/UHP/UFWC	
5		Dispensary/Clinic	
6		Hospital	
7		AYUSH Hospital/Clinic	
8	PRIVATE	Dispensary/Clinic	
9		Hospital	
10		AYUSH Hospital/Clinic	
11		NGO or Trust Hospital/Clinic	
12		Others	

Q. 32. If code-2 given for all health facilities in col. 3, except o
type of nearest health facility (from the drop down menu)
Q. No. 33: Distance in Kms. to the health facility from the village/town/CT in which the unit is situated

Q. No. 34. Whether the Sample Unit has sewerage/ drainage system? Yes-1/No-2
Q. No. 35 If code 1 in Q. No. 34, enter proper code: (Open drainage-1/closed drainage-2)
Q. No. 36. Did the Village experience any natural calamity during January-December 2013 Yes-1/No-2
Q. No. 37 If code-1 in Q. No. 36, name of the calamity

Col. 1 S. No.	Col. 2 Name of calamity	Col. 3 Yes-1/No-2
1	Flood	
2	Draught	
3	Sycdone	
4	Earthquake	
5	Fire	
6	Others	

Q. No. 38. Any major epidemic spread in the village/town/CT during the calendar year January-December, 2013?

Col. 1 S. No.	Col. 2 Name of epidemic	Col. 3 Yes-1/No-2	Col. 1 S. No.	Col. 2 Name of epidemic	Col. 3 Yes-1/No-2
1	Malaria		6	Diarhoea	
2	Kala-azar		7	Cholera	
3	Gastroenteritis		8	Dengue	
4	Dysentery		9	Chiken gunya	
5	Meningitis		10	Others	

Q. No. 39. Source of Information regarding village/town/CT in which the unit is situated
Sarpanch
Patwari
Teacher
Village health worker
Municipal Councillor
Any other

Q. No. 40. Distance in Km. to reach village/town/CT from the State Head Quarter
Q. No. 41. Mode of transport to reach village/town/CT from the State Head Quarter
Enter appropriate code:

Code of Q. No. 41	
Rail	1
Road	2
Rail and road	3
Air	4
Any other	5

Q. No. 42. Time taken to reach village/town/CT from the Stat Head Quarter
Enter approximate time in hours:
Q. No. 43. Wheather the accommodation facility available in the village/town/CT ? Yes-1/No-2

18. Type of facility available for delivery within the village (Put X in all available facility)

Government Sub Centre ☐ Primary Health Centre (PHC) ☐ CHC ☐ UHC/UHP/UFWC ☐ Govt. Dispensary/Clinic ☐ Govt. Hospital ☐

Govt. AYUSH Hospital/Clinic ☐ Private Dispensary/Clinic ☐ Private Hospital ☐ Private AYUSH Hospital/Clinic ☐ NGO or Trust Hosp/Clinic ☐

ANM/LHV/ASHA ☐ Traditional Dai ☐ Others ☐

19. Whether the village is electrified? (Put X in the appropriate box) Yes ☐ No ☐

20. Whether the Sample Unit has sewerage/ drainage system? Yes ☐ No ☐
(Put X in the appropriate box)
If yes in Q.20, the type of sewerage/drainage system available in major part of the unit Closed Drainage ☐ Open Drainage ☐

21. Whether the village has access to? (Put X in the appropriate box)

(a) Newspaper	Yes ☐	No ☐	(d) Internet	Yes ☐	No ☐	(g) Agricultral Society	Yes ☐	No ☐
(b) Telephone /Mobile phone	Yes ☐	No ☐	(e) Bank/ATM	Yes ☐	No ☐	(h)Public distributing system	Yes ☐	No ☐
(c) Television	Yes ☐	No ☐	(f)Post office	Yes ☐	No ☐			

22. Is there any Anganbadi Centre within the Village? Yes ☐ No ☐
(Put X in the appropriate box)

23. Is there any nutritional health programme for children in the village? (Put X in the appropriate box) Yes ☐ No ☐

24. Did the Village experience any natural calamity during 2013? (Put X in the appropriate box) Yes ☐ No ☐
If Yes in Q.24, please specify: (Put X in the appropriate box) Flood ☐ Drought ☐ Cyclone ☐ Earthquake ☐ Fire ☐
Others ☐

25. Any major epidemic spread in the village during the calendar year January-December, 2013? (Put X in the appropriate box) Yes ☐ No ☐
If Yes in Q.25, please specify (Put X in the appropriate box) Malaria ☐ Kala-azar ☐ Gastroentritis ☐ Dysentery ☐ Meningitis ☐ Diarrhoea ☐ Cholera ☐
Dengue ☐ Chikun gunya ☐ Others ☐

26. Whether the village has cremation/burial ground? Yes ☐ No ☐
(Put X in the appropriate box)

Information provided by (Put X in the appropriate box)
Sarpanch ☐ Patwari ☐ Teacher ☐ Village health worker ☐ Any other ☐

Please describe the time taken, distance covered and mode of transport used in reaching the Sample Unit from the State Headquarter.

Distance (in kms) ☐☐☐

Mode of transport: (Put X in the appropriate box) Rail ☐ Road ☐ Rail and Road ☐ Any other ☐

Time taken (in hrs) ☐☐☐

Whether the accommodation is available in the Sample Unit? (Put X in the appropriate box) Yes ☐ No ☐

Sup. Signature ☐

Name ☐

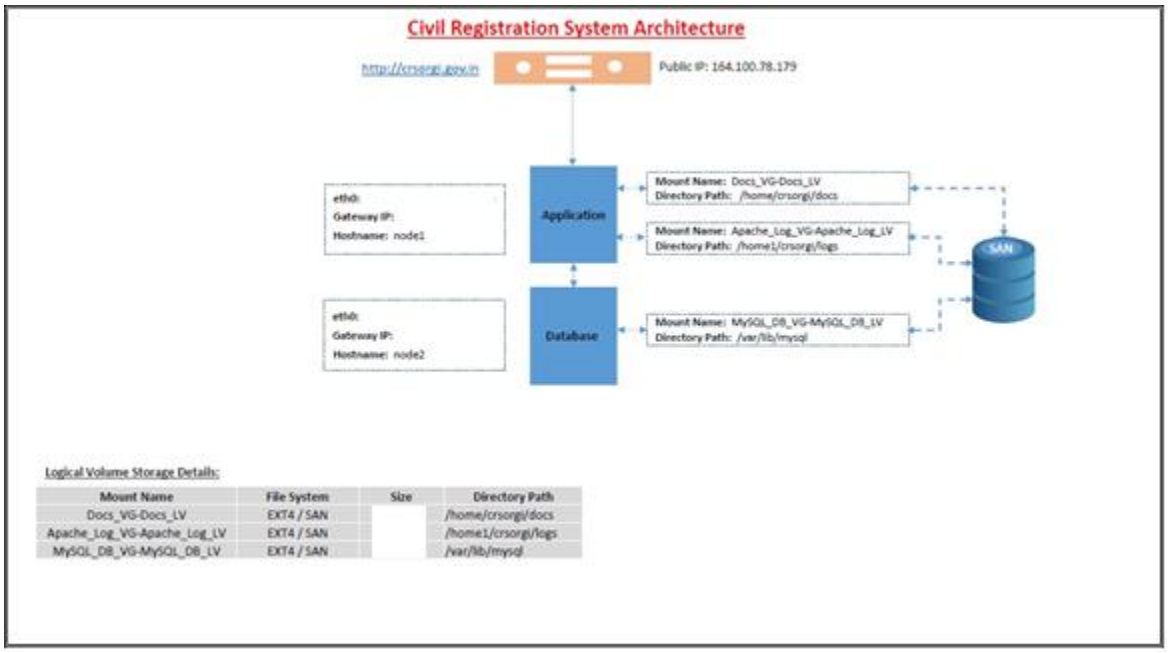
Designation ☐

Code ☐☐☐

Date ☐

Annexure 3: Technical Details of Existing CRS & SRS Application of ORGI

(i) CRS Application Architecture



Logical Volume Storage Details:

Mount Name	File System	Size	Directory Path
Docs_VG-Docs_LV	EXT4 / SAN		/home/crsorgi/docs
Apache_Log_VG-Apache_Log_LV	EXT4 / SAN		/home1/crsorgi/logs
MySQL_DB_VG-MySQL_DB_LV	EXT4 / SAN		/var/lib/mysql

The existing CRS architecture consists of two servers, one dedicated server for application and another one for database.

The configuration detail of application server is mentioned below:

1. HP Blade server BL685C

2. AMD Opteron 6272 2.20 GHz - 64 core CPUs

3. 128 GB RAM

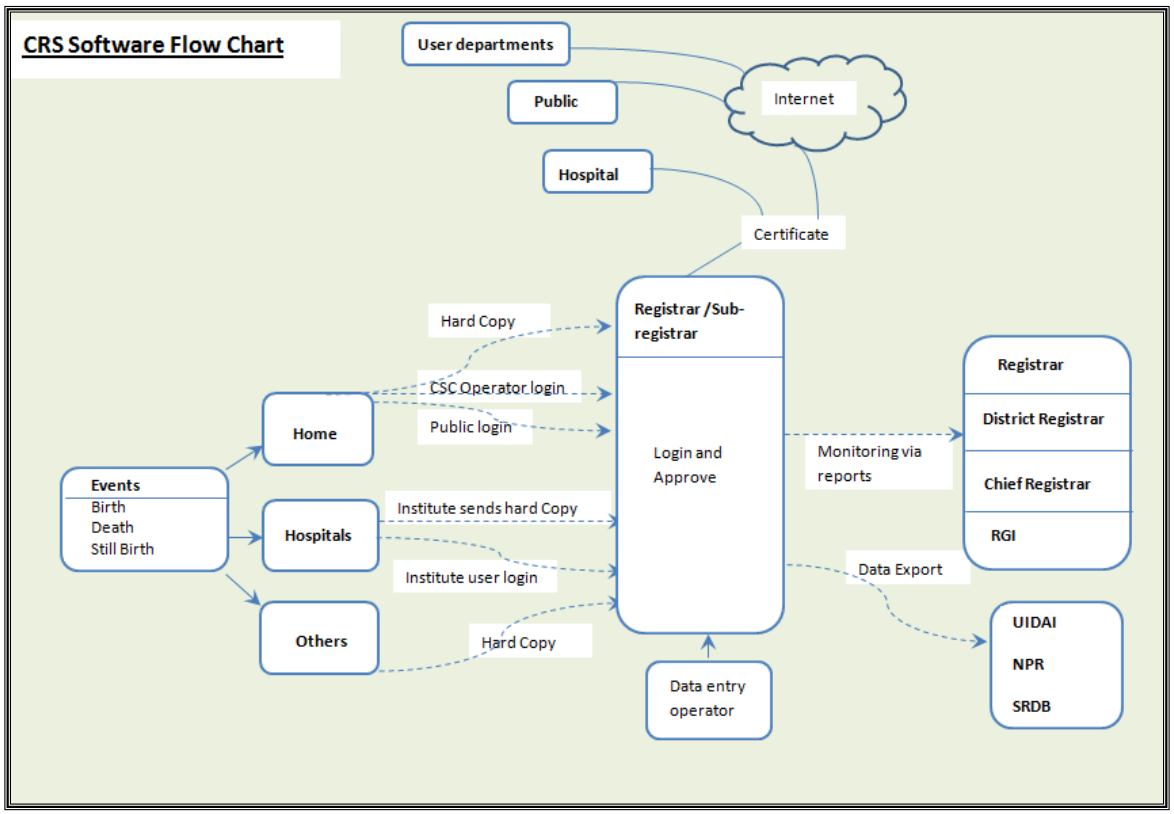
4. 4 Sockets

5. Local Storage - 300 GB Standalone

(ii) Technology Platform

Technology	PHP/Apache/MySQL
Presentation Layer	PHP version 5.3.3-40.el6_6.x86_64
	Symfony 1.4
Database	MySQL version 5.1.73-5.el6_6.x86_64
Development Environment	PHP, JQuery, Ajax, JavaScript
	MySQL version 5.1.73-5.el6_6.x86_64
Server Operating System	Red Hat Enterprise Linux Server release 6.7 (Santiago)
Client Operating System	Windows with Google Chrome Version 50.0.2661.102 m & Mozilla Firefox 45.0.1
Client Side Scripting	JQuery, JavaScript
Web / Application Server	Apache version 2.2.15-45.el6.x86_64
Email Server SMS Gateway Server	Mail server details - IP: 164.100.14.95, port: 25 SMS Server - IP: 164.100.14.211, port: 443
Build Tool	Dreamviewer, EditPlus, SQLyog Ultimate – MySQL GUI v8.32
Payment Gateway	None (PayGov.in Proposed)

(iii) Application Flow Diagram



(iv) SRS Technical Details

Application architecture	SRS application is built on .Net Framework 4.0 and deployed on window IIS 7.0
RAM and storage utilization	There is minimal utilization of RAM - 128 GB and Storage - 2 TB
Approximate No. of existing users	Maximum concurrent users can be approximately 50
Current size of data	Approximately 5 GB

Annexure 4: Indicative Functional Requirement Specifications of CIRBD and SIRBD

(i) CIRBD Users

Sl. No.	Requirement Description
1.	ADMA shall define all the Appropriate users of the portal with appropriate access levels as defined by the Chief Registrar.
2.	The system must be configurable to incorporate all types of users - Registrar General, Addl. Registrar General, Deputy Registrar General, ORGI Officials and other users may come up in future
3.	The users shall be configurable to incorporate an addition/deletion of group of users/channel in the future.
4.	All configurations by Administrators must be supported by a workflow
5.	The following are the indicative user groups to whom the Portal will cater to.
Internal Users of CIRBD	
6.	Registrar General
7.	Addl. Registrar General
8.	Deputy Registrar General
9.	ORGI Officials
10.	Chief Registrar
11.	System Administrators
12.	Portal administrator
13.	Content administrator
External Users of CIRBD	
14.	Govt. Departments
15.	NGOs
16.	Statisticians
17.	Planners
18.	General Public
19.	Demographers

(ii) General Features

Sl. No.	Requirement Description
Mandatory Requirements	
1.	The portal will support English and all 22 regional languages with the user having option to switch from one language to another
2.	Organising and classifying the records in a structured and hierarchical records classification scheme and assigning a unique identifier to each aggregation of records and record
3.	Supporting users to search, retrieve, print, download, charge-out/charge-in records, etc. in accordance with the security and access control of records
4.	Protecting records from inadvertent or unauthorized alteration, deletion, access and retrieval; and monitoring the integrity of records through audit trails
Accessibility	
5.	The system shall provide web-based access to external users via the public Internet from the CIRBD portal
6.	The system should allow unauthenticated users access to anonymous and un-protected website features and application functions as appropriate
7.	The solution shall provide a navigation portal. The portal shall be secure through SSL certificate and shall not require multiple sign-in steps.
8.	The system would be in an API exposing and consuming relationship. There would be data that the solution would pull from the SIRBD database and data that the solution would push to the CIRBD portal
9.	The system should be accessible through a User Interface (UI) to all users over the internet, 24x7, for the entire duration of the contract.
10.	Open access to the dashboard over the internet, unlimited user accessibility
11.	Assign role based access for 50 users, scalable to 1000
12.	The solution should be sized to cater to 20 concurrent users, scalable to 100, for all analysis functionalities requiring a login. The configurable user based access parameters would be finalized in consultation with ORGI at the time of deployment of the solution, and would be operated and maintained by ADMA team throughout the contract period.
Accessibility across Multiple Devices	
13.	The system should provide a mobile version (e.g. m.abc.gov.in), with scaled functionality, for mobile browsing on small form factor devices and mobile computing platforms (i.e., “smart” phones, tablets, and PDA applications) in a manner suitable for use.
14.	The portal must also distinguish the transaction device and modify screen resolution accordingly. E.g. Mobile, Tablet, PC etc.
Role Based Access	
15.	Role based access control (RBAC) to functionalities is to be designed i.e. Access to functionalities shall be decided based on profile of the user which will largely depend upon user type, hierarchy, location, designation, role as the case may be. The access to **data and information** shall also be role based and the content shall be personalized wherever applicable

Sl. No.	Requirement Description
16.	Web Portal must have the ability to receive data inputs as per the user role defined. It should provide for user admin capability by way of access rights in terms of application screens, data, reports, products, business functions / transactions, etc. Administration rights to be provided (GUI based)
17.	Must be able to identify the user initiating the transactions (through a mapping with user ID) and accordingly render the contents. e.g. Registrar General, Chief Registrar etc.
18.	Users should be able to add their own screen-flow preferences. These screen flows and preferences should remain through system and version upgrades. For example: A user may require to set the Dashboard page as her landing page.
19.	The system shall support multiple presentation views of the end-user web interface tailored to the end user's role and purpose within the system.
20.	The system must support defining a default homepage depending on the user type. For example, the home page for a Chief Registrar must be the State's dashboard on births, deaths and other vital indicators in his/her jurisdiction
21.	ADMA must implement Role based access (i.e. define and manage roles that are used to grant access/entitlement profiles to users based on rules)
System Availability, Performance and Scalability	
22.	The System must be available to users with an uptime of at least 99%
23.	The System must provide adequate response times (<=2 seconds) for commonly performed functions under both standard and peak conditions
24.	The System must be able to retrieve and display within 20 seconds the reports which has not been accessed within the previous 2 months, regardless of storage capacity or number of cases in the system
25.	The System be scalable to at least 1000 concurrent and active users and meet the availability and performance requirements for data creation as well as search and reporting functionality
System Features	
26.	The portal should be able to aggregate various functionalities, to the end user, in a seamless manner.
27.	ADMA must implement a rich user interface using web 2.0 and html 5 or the latest web and html versions available at the time of development
28.	The web portal must have functionality to refresh dependent fields with a smooth user experience E.g. After choosing the state, the dropdown values for districts are restricted to applicable values only.
29.	Search facility to be provided on portal
30.	The system must support Bulk upload of information from xls, csv, txt, xml etc. and process manually or through batch. It should have mechanism to provide real time feedback of records
31.	The portal must be compatible with all leading Browsers
32.	Must have the capability to auto prompt details for example: Name of State and other location codes as per LGD Codes

Sl. No.	Requirement Description
33.	Navigation across the portal must be secured such that the access to web pages is ensured only through proper navigation.
34.	The system shall provide field-level validations for transactions during data entry and provide timely user feedback, including error messages and possible corrective actions.
35.	The solution shall provide user-configurable resolution, font, and colour choices.
36.	The solution shall be browser-independent and operate for most functions regardless of browser brand, as long as the user's browser has broad usage and the version is recent in publication.
37.	The solution shall meet all regulatory and requirements for Indian Government Websites
38.	The solution shall provide a state-of-the-art user experience.
39.	The solution shall use cascading style sheets and other modern browser technologies to ensure that the look and feel of the site can be changed without requiring reprogramming of the portal.
40.	The system shall provide a secure, thin client, browser-based solution. The presentation tier must not be dependent upon application, applet, or plug-in delivered to the user for system functionality.
41.	The system shall not be solely dependent on client-side validation for user input. Validation of user inputs must also be performed server-side to support users with client-side scripting disabled on their browser.
42.	The system shall provide field-level validations for transactions during data entry and provide timely user feedback, including error messages and possible corrective actions.
43.	The solution shall provide user-configurable resolution, font, and colour choices.
44.	The solution shall provide navigation clues for the users as a way to keep track of their location within programs or documents.
45.	The solution shall be browser-independent and operate for most functions regardless of browser brand, as long as the user's browser has broad usage and the version is recent in publication.
46.	The system shall provide and solicit information at an appropriate literacy level that meets the language needs of the users. ADMA should take reasonable steps to provide meaningful access by persons with limited English proficiency.
47.	The system shall display a Security Warning Banner where required as provided by prior to allowing entry into the system.
Analytics	
48.	Analytics-based tools to be used for monitoring the usage of web portal by different types of internal users as well as individual users for the purpose of user statistics, security management, online behavioural analysis and dynamic information provision.
Administrative functions	
49.	Must support user administration of various users of the portal system. The functionality must provide options such as user search/enquiry/add user/merge users/split users.
50.	ADMA must implement administrative capabilities such as Reset of user and password; addition and deletion of users (through role based access), transaction limit set up.

Sl. No.	Requirement Description
51.	Authorized office users can assume role of any portal user and will have VIEW ONLY access to the functionalities in that role. This will assist in help and support functions
Gamification	
52.	ADMA must implement the portal with gamification techniques using game mechanics to enhance user engagement
53.	Displaying fancy graphics and animations to enhance the appeal of the website / portal
54.	Progression dynamic mechanics in which success is granularly displayed and measured through the process of completing itemized tasks
Integrating an External Web Application into a Portal	
55.	Surface existing external web application content within Proposed Portal.
56.	Proposed Portal provides screen scraping to integrate web applications
Information Section	
57.	Web portal should be CMS based and any modification to the content should be made through front end only
58.	Portal should have the following sections
59.	CRS Vision, Objective and Organization setup etc.
60.	State-wise designation wise contact information of officers
61.	Various forms and application of CRS
62.	Various Rules and Regulations related to Registration of Births and Deaths
63.	Notifications
64.	Feedback / Complaint form
Security Requirements	
65.	Virus Attack: The solution should provide protection against Back Doors and Trojan Horses
66.	Masking and of Aadhaar Number in the database
67.	Encryption of the Aadhaar Data in the database
68.	All critical data, records and logs to be stored only in encrypted forms on the servers. The decryption keys will be accessible only to competent authority
69.	Automatic session sign-off after certain period of inactivity
70.	The solution should be Non-Intrusive – Must make no changes to the operating system kernel or binaries. Software must allow for quick uninstall if necessary.
71.	The solution should be capable of enforcing the password policy: a. Minimum number of characters. b. Alphanumeric strings

Sl. No.	Requirement Description
	c. Expiry after a certain period d. Changeable by the administrator and user
72.	Alert to Administrator for any security breach at the user end. Capability to block user remotely

(iii) CIRBD Core Module

Sl. No.	Requirement Description
General	
1.	The login shall be given to ORGI and Chief Registrars only or as per requirement of ORGI
2.	Non-login users shall be able to use the system with limited, view only functionality of the reports and dashboards
3.	The portal with the prescribed statistics will be available for general public view
4.	The statistics shall be published only after due approval from ORGI
5.	The login shall be role based, on successful login user should be taken to the appropriate page
6.	System should be able to integrate the SIRBD into the CIRBD through Web services/APIs
7.	System should allow the Chief Registrars to upload the data in excel format in case API integration is not available for a particular state
8.	System should be able to consolidate registration data from the SIRBD
9.	System must be able to identify the user initiating the transactions
10.	System should allow ORGI to search and view the statistics in the respective jurisdiction as per various levels - state / district
11.	System should alert the user to view escalations and alerts generated from the SIRBD
12.	The system should allow the user to view the alerts and flag them for action later
13.	ORGI users should have option to seek clarification from the CR / DR / Registrar for the alerts generated
14.	The system should be able to generate smart reports
15.	Indicative Fields to be aggregated from SIRBD to CIRBD shall be as prescribed in Section 4.3 of the RFP
Official Dashboard (after login)	
16.	Dashboard should be customized as per the user requirements
17.	Dashboard should provide information to the user as per user role
18.	Dashboard should provide tabular and Graphical view of the data / information queried
19.	User should be able to configure dashboard from front end tools

Sl. No.	Requirement Description
20.	Monitoring of registrations event-wise, area-wise etc.
21.	System should provide real time reporting to the all concerned
22.	System should provide facility to the user to the submit query and generate reports as per the business requirements
23.	System should allow to select columns to be mapped in a report
24.	System should generate graphical view of the reports wherever possible
25.	System should generate reports based on the specific user roles and accessibility
26.	System should be able to generate reports for the vital indicators
27.	System should be able to generate trend analysis
28.	System should be able to analyse events and vital indicators based on various parameters
29.	System is expected to facilitate decision making by compiling the information from different functional areas of the organisation in the required format
30.	System should be able to prepare comparative reports, charts, analysis of various common indicators of CIRBD and SRS Application
Public Dashboard (without login)	
31.	Dashboard should be available anonymously and for public view for analysis and download
32.	System should provide facility to the user to the submit query and generate reports as per the business requirements
33.	Dashboard should provide tabular and Graphical view of the data / information queried
34.	System should allow to select columns to be mapped in a report
35.	System should generate graphical view of the reports wherever possible
36.	System should generate reports based on the specific user roles and accessibility
37.	System should be able to generate reports for the vital indicators
38.	System should be able to generate trend analysis
39.	System should be able to analyse events and vital indicators based on various parameters
40.	System is expected to facilitate decision making by compiling the information from different functional areas of the organisation in the required format
41.	System shall reveal only statistical information and no personal, identifiable data shall be available
Reporting (Output)	
42.	The solution should be able to provide reports in the following formats: • PDF • Spreadsheet (.xlsx, csv) • XML etc.

(iv) User Management

Sl. No.	Requirement Description
Creation of Users	
1.	There will be two main categories of users - ORGI / State Officials and General Public. General Public would be able to access all features which are marked as open & unrestricted. Authorized ORGI / State officials would be able to access the restricted part of CIRBD
2.	User IDs will be created by ORGI only. The IDs will be created for Chief Registrars and for ORGI officials
3.	Chief Registrars should be able to see the state level and district level dashboards for their respective states
4.	The Login Users will have views such as: i) Number of births(In different time spans, and area wise distribution) ii) Number of deaths(In different time spans, and area wise distribution) iii) Number of deaths(In different time spans, and area wise distribution) iv) Gender specific birth/still birth and death(In different time spans, and area wise distribution) v) Infant Mortality rate vi) Sex Ratio at Birth vii) Maternal mortality rate
5.	User IDs shall be unique and shall be created by the system administrator
6.	Portal must support updating and managing profile information of Users. Integration with relevant systems to be provisioned for propagating the updates
7.	Must support search inquiry/update of various downloadable forms and allow for the same to be saved on the local desktop.
8.	ADMA should implement the following basic self-service facilities for users:-
9.	Retrieval of portal user-id (Forgot user-id) based for few mandatory fields and validation
10.	Update of portal profile
11.	Inform the user about the last login date & time and current IP address
12.	The application must have appropriate validation for the fields to be filled
13.	The system must be configurable to incorporate all types of users - Registrar General, Addl. Registrar General, Deputy Registrar General, ORGI Officials and other users may come up in future
14.	The users must be configurable to incorporate an addition/deletion of group of users / channel in the future.
15.	All configurations by Administrators must be supported by a workflow
16.	ADMA must implement single sign-on for the user groups which will enable access to role based functionalities

(v) Non-Functional Requirements

Sl. No.	Requirement Description
1.	The system shall have ability to send email/SMS notifications to users whenever required.
2.	System will require user interfaces for data migration, data backup/recovery.
3.	Following needs to be supported by the system a.) Data needs to be stored in relational database for quick queries and storage. b.) Passwords shall be sent and stored in encrypted form. c.) System shall be robust to handle all types of data. d.) System must be error/bug free at the time of production use. e.) System will have data records import/export facility to and from spreadsheets. f.) System shall be able to store images/scanned docs into database in uniform size at acceptable resolution.
4.	Application development related software, licenses and SSL licenses required for Proposed Portal shall be procured by ADMA
5.	The system should support ease in addition of services in future and scalability in provided services
6.	The system should be designed in manner that operational data is not lost in case of any failure of equipment or communication network.
7.	The system should be designed for access through browser-based systems and must impose minimal requirements on the client device of different operating systems including mobile phone/ handheld interfaces.
8.	The solution should maintain a database of frequently asked questions
9.	The solution should provide data dictionary along with the description of the objects, fields, and field types
10.	Upgrades of the solution (fixing of defects or adding new enhancements or releasing new versions) should have zero/minimal impact to the installed system and should not affect the current version adversely
11.	The solution and supporting libraries must not contain code that is never invoked during operation.
12.	The process for removing unnecessary code from the application after it is released should be documented.
13.	Application code should not contain invalid references to network resources (Pathnames, URLs etc.).
14.	The solution should not display the entire path of URL in the browser based application
15.	The application should include an explicit error and exception handling capability. Application error and exception handling messages displayed to users must not reveal information that could be utilized in a subsequent attack. Error messages should not include variable names, variable types, SQL strings, or source code. The application code should not rely on internal system generated error handling.

Sl. No.	Requirement Description
16.	The solution should be able to manage exceptional situation (against SOP/ Workflow) handling and should have escalation/auto escalation mechanism.
17.	Application failure should not result in an insecure state of the system.
18.	Data model should be flexible to add more data fields as per changing business needs
19.	The application should provide data migration tools in case of data structure change during transfer to new versions
20.	The solution should be able to integrate with Statistical Tools
21.	The solution should be able to integrate with Reporting Tools
22.	The solution should be developed using a pluggable architecture so that additional modules can be added without changing the core application
23.	All error messages produced by the System must be meaningful, so that they can be appropriately acted upon by the users who are likely to see them. Ideally, each error message will be accompanied by explanatory text and an indication of the action(s) which the user can take in response to the error.
24.	The System must provide end user and administrator functions which are easy to use and intuitive throughout.
25.	Splash screens should be avoided unless they provide useful content or feedback about the application state to the user. If a splash screen is used, a navigation option to skip it should be offered.
26.	Vertical scrolling should be minimized. This may be done by placing important information at the top and providing links to information that is further down the page. Horizontal scrolling should be avoided wherever possible.
27.	Avoiding link overload: Text pages containing large proportions of links should be formatted so that the presence of links does not impede the readability of the text.
28.	Providing printable document versions: If a document is either too long, dispersed over several pages or in a specific layout that is not suitable for online reading, a printer-friendly version of the document should be provided that prints the content in a form acceptable to the user
29.	The website should be responsive in design and should adjust itself as per the screen size
30.	The solution architecture should be platform and vendor independent
31.	The solution is required to provide modularity (business function and process) that should support addition / removal of one more modules as and when required.
32.	The solution should support the following network types: LAN & WAN Leased Lines ADSL Lines Wireless Networks Satellite Networks MPLS based networks VPNs
33.	The solution should support load balancing

Sl. No.	Requirement Description
34.	The solution should be designed in manner that operational data is not lost in case of any failure of equipment or communication network.
35.	The framework should support plugging in of other authentication methods in the future.

(vi) SIRBD Portal

The SIRBD application shall be based on the same features and functions as the CIRBD application and existing CRS application. However, some customization will be required as per the requirements of the states and for the states to be able to integrate with their existing CRS applications and CIRBD application at ORGI. Additionally, SIRBD will also have a separate module for registration of births and deaths with enhanced features of Existing CRS application. There will be facility for API-based integration with Aadhaar for eKYC, eSign and transfer of identified data from SIRBD to Aadhaar. The indicative functional requirements of the registration module is mentioned in next section.

(vii) SIRBD Registration Module

Sl. No.	Requirement Description
General	
1.	The user may be one or all of the following: Citizens, Registration functionaries viz. Hospitals, Sub Registrars, Registrars, Notifiers
2.	The login shall be role based, on successful login user should be taken to the appropriate page
3.	User must be able to see any saved reports or documents in his dashboard
4.	User must be able to see the status of any events reported to / by him
5.	System must be able to identify the user initiating the transactions
6.	System should partially mask the Aadhaar number entered except for the user's own Aadhaar number
7.	The system should have the capability to generate an alert to next level authority if an event is pending for registration for more than 7 days
8.	The system should have the capability to generate an alert for Registrars when a hospital has not reported any event for more than 7 days
9.	The system should allow the user to view the alerts and flag them for action later
10.	Once an event is reported successfully, a reference number must be generated by the application and displayed at the screen. SMS & Email should be sent for the same to all the contact numbers & mail IDs which have been entered in the forms.
11.	The system should have provisions for computation of fee for delayed registration, if applicable
12.	The system should be integrated with a payment gateway through which applicable fees can be paid by the applicant
13.	Registrar should have options like view, reject, approve and seek clarification for the reported events.
14.	Registrar should not be able to alter the details submitted by the informant and may only seek further clarification

Sl. No.	Requirement Description
15.	In case erroneous information has to be corrected or cancelled, then the approval process flow has to be designed in accordance with the CRS Rules framed by the respective state
16.	Each reported event should have a text field to enable Approver to provide his comments on rejection/ seek clarification.
17.	Registrar should have an option to select the reported event in bulk for approval/rejection/seek clarification.
18.	An application number shall be generated by the system for any form submitted
19.	SMS & Email alert should be sent for the application number to the concerned persons mobile number & mail ID which have been entered in the forms.
20.	Once approved, a registration number should be auto- generated by the application. The registration number shall not change even if modifications are made in the application If rejected, then also the status update must be communicated to the applicant
21.	The certificate shall be automatically digitally signed by the Aadhaar of the Registrar with date and time stamp once approved
22.	Once registration number is generated, a certificate should be automatically generated and the applicant should be alerted through SMS and email.
23.	A link to download the certificate should be sent on SMS and email. The link would require SMS based OTP authentication for downloading the certificate
24.	Certificate would not be generated for Still Birth registration
25.	A unique QR code should be generated and mapped with the certificate which have been printed once.
26.	The QR code should enable any user to access & print / download the certificate
27.	Once an event is registered, the applicant may only apply for the inclusion of name in the birth certificate, any other change shall not be allowed
Birth / Death / Still Birth Registration	
28.	The system should open a blank form (Form-1 / 2 / 3) when Add birth / death / still birth registration is selected
29.	Reporting Form should have two parts (1) Legal (2) Statistical as per CRS Form-1 / 2 / 3 with all the fields as per the standard format
30.	Mandatory fields should not get submitted as blank/null.
31.	The form may have more than 1 page, but there should be easy/clear navigation like next page and previous page buttons. Options like reset, save and submit should be there on appropriate pages.
32.	A message must pop-up, if any of the mandatory fields left blank by user, while submitting the form. User should not be able to submit the form without filling all the mandatory fields.
33.	Reporting form should allow user to attach supporting documents. Document types should include but not limited to JPG, PDF, and PNG etc. It should also allow scanning of a document from the system scanner or such scanning device
34.	Saved forms should be listed in the user's dashboard for review, modify and submit / delete.

Sl. No.	Requirement Description
35.	Checking of Duplicate requests: Records/data should be checked in already registered/reported events for duplicate reporting of events based on pre-defined algorithms
36.	Reported events should be submitted to Registrar as already defined under the state CRS rules
37.	Form must have an option of capturing Aadhaar / EID or asking the citizen to check a statement with a declaration that he does not possess an Aadhaar number
38.	All documents and forms reported shall be automatically signed using the eSign feature of Aadhaar upon approval. Physical forms (1 / 2 / 3) will not be required to be sent for verification.
Addition of Name of Child	
39.	The system should allow addition of name of child for an already registered event if the name of the child has not been recorded earlier
40.	The system should be able to search and select the record based on Registration ID / Name /Date of Birth etc. once "Addition of Child Name" is selected
41.	The System should search the details of the event once the registration id is entered
42.	The system should capture the name of the child
43.	The system should allow the request to be sent to the concerned Registrar for approval
44.	Once approved by the Registrar the name of the child should be added and new certificate with name be generated.
Non Availability Certificate	
45.	The system should allow an individual to request for a Non Availability Certificate
46.	The system should generate a format for application of NAC
47.	A message must pop-up, if any of the mandatory fields left blank by user, while submitting the form. User should be able to submit the form without filling all the mandatory fields.
48.	Application form should allow user to attach supporting documents. Document types should include but not limited to JPG, PDF, and PNG etc. It should also allow scanning of a document.
49.	Approver should have options like view, reject, approve and seek clarification for the application
50.	Once the application is approved/rejected , the applicant is intimated by SMS and Email regarding the update
51.	Once NAC has been generated, a user should be able to download and print the certificate for further use
Correction or Cancellation of Entry	
52.	The system should allow an individual to request for a Correction or Cancellation in the entry
53.	The system should generate a format for application of Cancellation /Correction

Sl. No.	Requirement Description
54.	The system should populate the details of the event once the registration id is entered if it is present in the system
55.	The system should allow a Registrar to cancel or correct an entry on suo moto basis as well
56.	A message must pop-up, if any of the mandatory fields left blank by user, while submitting the form. User should be able to submit the form without filling all the mandatory fields.
Duplicates Checking and Alerting	
57.	The system should check existing record prior to sending the request for new registration
58.	The system should check existing record and show warning to the applicant / Registrar that such registration has already is process or completed
59.	ADMA shall develop algorithms for checking duplicates for individuals / hospitals / notifiers
Backward Compatibility	
60.	RES should have mechanism for generation of certificates of old birth / death (previously registered) record
61.	RES should have mechanism for data digitization from old birth / birth old birth / death (previously registered) records
62.	RES should have mechanism for bulk upload / migration of old birth / death (previously registered)
Grievance Registration	
63.	Must enable Citizens to post their Grievances through Portal. This must get propagated to ICMS (integrated complaint management system) which in turn is integrated with IRDA-IGMS (integrated grievance management system)
64.	The status of the grievance must be displayed on the portal for the stakeholder
65.	The grievance thus received must be routed to authorized users for assignment and resolutions.
66.	The system should allow the uses to login to the portal and register the complaint
67.	The fields to be captured should be : Name, Mobile, Subject, Grievance Details, Upload button
68.	The system should be able to generate an acknowledgement having a unique reference number against complaint to enable the user to online check the status on registered complaint.
69.	The system shall be able to forward grievance to concerned Level one office as defined by matrix and escalation process
70.	The registration functionary responds to the query with appropriate comments as well as the attachments as mentioned
71.	System at all the stages will provide the details of status of Grievance.
72.	The system shall maintain the details of work/application that has not been addressed within 14 days and send a report to the higher level functionaries

Sl. No.	Requirement Description
73.	System should give a provision for feedback to the citizens about their satisfaction level based on the grievance redressal
74.	The feedback should be collected on different levels of satisfaction: Very High, High, Average, Low, Very Low
75.	The system shall have generate various MIS reports as desired by ORGI.
Training	
76.	System must allow registration functionaries to login and access the training module
77.	The training module will have training material for downloading/view as well e-learning module
78.	e-Training/e-Learning material, web based learning courses, Multiple choice questions should be enabled in the system
79.	The system should allow the videos and other training material to be available for download
80.	The system should facilitate upload & display of product collaterals for training through Chief Registrar and ORGI Level Functionaries
81.	Chief Registrars should be allowed to update the training material for their respective states

(viii) SIRBD Registration Module (Mobile Version)

Sl. No.	Requirement Description
1.	The mobile must be developed on Android platform only
2.	The mobile app must be downloadable through Google play store or any other medium as applicable
3.	The mobile must work on low bandwidth connections as well as in offline mode with data sync facility on availability of internet connection
4.	Facility must be provided to synchronize data on the local hand held device
5.	The users of the mobile app will be Registrars / Sub-Registrars / Notifiers for reporting / registration similar to the web-based SIRBD registration module
6.	The login shall be role based, on successful login user should be taken to the appropriate page
7.	The login should have password reset facility
8.	The system should allow the password to be reset using OTP verification through email/SMS whichever is applicable
9.	User must be able to see any saved data or documents in his/her dashboard
10.	The mobile app must allow users to capture the data as per their prescribed forms
11.	The mobile app must be integrated with the online application of SIRBD module
12.	The system should have search facility to check for the details submitted in the past using different parameters like date, month and year

Sl. No.	Requirement Description
13.	The system should not allow any data to be edited post approval
14.	Encrypts data at rest (on device) on mobile devices
15.	All critical data, records and logs to be stored only in encrypted forms on the servers. The decryption keys will be accessible only to competent authority
16.	Automatic session sign-off after certain period of inactivity
17.	Alert to Administrator for any security breach at the user end. Capability to block user remotely

Annexure 5: Indicative Functional Requirement Specifications of SRS Application

Sl. No.	Requirement Description
General Features	
18.	The system shall provide web-based access to external users via the public Internet from the SRS portal website.
19.	Online user registration and login along with forgot password or password reset option must be provided
20.	The system should allow the password to be reset via SMS and email module
21.	Self-initiated registration shall need the approval of the competent authority
22.	The system should follow the hierarchy of approval: DCO to approve the registrations of PTE and Supervisors, ORGI to approve the registrations of DCO
23.	The solution shall provide a navigation portal. The portal shall be secure and shall not require multiple sign-in steps.
24.	The online portal shall be accessible on multiple devices
25.	The portal must also distinguish the transaction device and modify screen resolution accordingly. e.g. Mobile, Tablet, PC, Kiosk etc.
26.	Role based access control (RBAC) to functionalities is to be designed i.e. Access to functionalities shall be decided based on profile of the user which will largely depend upon user type, hierarchy, location, designation, role as the case may be. The access to data and information shall also be role based and the content shall be personalized wherever applicable
27.	Web Portal must have the ability to receive data inputs as per the user role defined. It should provide for user admin capability by way of access rights in terms of application screens, data, reports, products, business functions / transactions, etc. Administration rights to be provided (GUI based)
28.	System must be available 24x7x365 to the users.
29.	It is binding on the SI to Use systems procured as per the standardization RFP floated by ORGI
30.	The portal should be able to aggregate various functionalities, to the end user, in a seamless manner.
31.	SI must implement a rich user interface using web 2.0 and html 5 or the latest web and html versions available at the time of development
32.	Search facility to be provided on portal.
33.	The system must support Bulk upload of information from xls, csv, txt, xml etc. and process manually or through batch. It should have mechanism to provide real time feedback of records
34.	The portal must be compatible with all leading Browsers
35.	The solution shall use cascading style sheets and other modern browser technologies to ensure that the look and feel of the site can be changed without requiring reprogramming of the portal.
36.	The system shall provide field-level validations for transactions during data entry and provide timely user feedback, including error messages and possible corrective actions.

Sl. No.	Requirement Description
37.	Must support user administration of various users and sample units/enumeration blocks of the portal system. The functionality must provide options such as user search/enquiry/add user/merge users/split users.(For example, two SUs can be merged into one as per administrative changes/new SUs can also be created / edited / added / deleted)
38.	The Portal should provide screen scraping to integrate web applications
39.	The Portal should have Servlet/JSP Proxy to enable capability for Integrating an External Web Application into a portal
40.	The system should maintain an audit trail of the data being captured, processed and reported
41.	The system should have a monitoring system to inform ORGI about delay in reporting by DCO/PTE/Supervisor
42.	The system should have a monitoring system to inform DCO about delay in reporting by PTE/Supervisor
Application Features	
43.	The system should have 3 major modules viz. DCO(Directorate of Census Operations) module, HYS(Half Yearly Survey), and PTE(Part time enumerator) module
44.	The PTE module must allow the user to capture the data as per the prescribed forms
45.	The PTE module must capture and store data in the offline mode also
46.	The Supervisor module must allow the user to capture data as per the prescribed forms
47.	The Supervisor module must capture and store data in the offline mode also
48.	The data provided by PTE and Supervisor modules must be matched automatically during the half yearly survey as per the prescribed algorithm
49.	The system must return the values of Partially Matched, Unmatched and Matched from the reconciliation process
50.	The system must allow the process of reverification and aberrant inspection
51.	The system must allow the finalized half yearly survey to be sent to ORGI
52.	DCO must be authorised to perform the data entry of the PTE
53.	The system must not allow the DCO,PTE and Supervisor to edit any data once it has been submitted
54.	The option of data editing must be available with ORGI officials only
55.	The system must allow the DCO to send the prescribed forms to ORGI
56.	The application must have an MIS(Management Information System) Portal for generation of reports
57.	The MIS portal must fetch the reports and present the data in different formats
58.	The reports have different options for presentation i.e. tabular, pie chart, graphs etc.
59.	The DCO module must allow the user to import the baseline survey data
60.	The relevant forms must get populated based on the user access rights

Sl. No.	Requirement Description
61.	The relevant forms must get populated based on the data imported in the module
62.	The system should allow the print out of all the forms to be handed over to the supervisor for baseline survey verification
63.	The HYS utility in DCO module must allow the upload of data file with the data captured by the supervisors
64.	The portal must allow the user to update and reset the data in the relevant forms before submission
65.	The system must allow the authenticated users to add/delete/edit the records in the online forms
Mobile Features	
66.	The mobile must be developed on Android platform only
67.	The mobile app must be downloadable through Google play store or any other medium as applicable
68.	The mobile must work on low bandwidth connections as well as in offline mode with data sync facility on availability of internet connection
69.	Facility must be provided to synchronize data on the local hand held device
70.	The users of the mobile app will be PTE and Supervisor
71.	The login shall be role based, on successful login user should be taken to the appropriate page
72.	The login should have password reset facility
73.	The system should allow the password to be reset using OTP verification through email / SMS whichever is applicable
74.	User must be able to see any saved data or documents in his/her dashboard
75.	The mobile app must allow the PTE and supervisor to capture the data as per their prescribed forms
76.	The PTE module must allow the PTE to auto generate compiled reports and send to DCO
77.	The HYS(Supervisor) module must allow the supervisor to auto generate compiled reports and send to DCO
78.	The mobile app must be integrated with the online application of SRS
79.	The mobile app must allow the PTE and Supervisor to send messages to DCO
80.	The mobile app must allow the DCO to send alert messages to PTE/Supervisors
81.	The mobile app must generate alerts in case data is not sent to DCO as per the prescribed dates
82.	The system should have search facility to check for the details submitted in the past using different parameters like date, month and year
83.	The system should not allow any to be edited post submission
84.	Encrypts data at rest (on device) on mobile devices
85.	All critical data, records and logs to be stored only in encrypted forms on the servers. The decryption keys will be accessible only to competent authority
86.	Automatic session sign-off after certain period of inactivity

Sl. No.	Requirement Description
87.	Alert to Administrator for any security breach at the user end. Capability to block user remotely
88.	The mobile app should support English and all 22 regional languages

Annexure 6: Indicative List of Indicators and Reports to be Available in CIRBD / SIRBD

Following is an indicative list of indicators and reports which are to be generated in the form of graphical, intuitive dashboard and smart reports state-wise, district-wise and for the country:

1. Sex Ratio at Birth (SRB)
2. Infant Mortality Rate (IMR)
3. Still Birth Rate (SBR)
4. Maternal Mortality Ratio (MMR)
5. Under-5 Child Mortality
6. Estimated events and Level of Registration by India, States
7. Number of registration units and level of reporting by place, India, States and UTs
8. Number of registered infant deaths by States/ Union Territories
9. Registration completed within prescribed time limit (21 days)
10. Birth Registration completed within prescribed time limit i.e. 21 days
11. Death Registration completed within prescribed time limit i.e. 21 days
12. Sex-wise distribution of Registered births and deaths
13. Sex-wise Registered Births and Deaths of Major States
14. Total Registered and Estimated Births & Deaths of Major States
15. Percentage distribution of registered infant deaths by place of occurrence
16. Percentage distribution of infant deaths by sex
17. Still Births
18. Level of Registration of Births
19. Level of Registration of Deaths
20. Major States (Population above 10 million as per 2011 Census) classified by their level
21. of registration,
22. Time Gap in Birth Registration – States/Union Territories
23. Time Gap in Death Registration – States/Union Territories
24. Number of births registered by sex and residence
25. Number of deaths registered by sex and residence
26. Number of infant deaths registered by sex and residence
27. Number of still births registered by sex and residence

28. Level of Registration of births and deaths - States / Union Territories
29. Death by Age and Sex of the deceased
30. Number of births registered - States/Union Territories/Districts
31. Number of deaths registered - States/Union Territories/Districts
32. Number of infant deaths registered - States/Union Territories/Districts
33. Number of still births registered - States/Union Territories/Districts

Annexure 7: Indicative List of Indicators and Reports to be Available in SRS Application

Following is an indicative list of indicators and reports which are to be generated in the form of graphical, intuitive dashboard and smart reports state-wise, district-wise and for the country:

1. Number of sample units at different replacement period
2. Number of sample units and population covered
3. Annual estimates of Birth rate by residence
4. Annual estimates of Death rate by sex
5. Annual estimates of Infant mortality rate by sex
6. Annual estimates of Total Fertility rate by residence
7. Sex ratio at birth (female per 1000 male) by residence
8. Crude Birth Rate
9. Crude Death Rate
10. Age-specific fertility rate
11. General fertility rate
12. Total fertility rate
13. Gross reproduction rate
14. Age-specific marital fertility rate (ASMFR)
15. General marital fertility rate (GMFR)
16. Total marital fertility rate (TMFR)
17. Age-specific mortality rate (ASMR)
18. Under-five Mortality Rate
19. Infant mortality rate
20. Neo-natal mortality rate
21. Early Neo-natal mortality rate
22. Late Neo-natal mortality rate
23. Post Neo-natal mortality rate
24. Peri-natal mortality rate
25. Still Birth Rate

Annexure 8: Minimum Bill of Quantities and Technical Specification of IT Infrastructure to be supplied by ADMA for CIRBD

Sl. No.	IT Infrastructure Items	Minimum Quantity
1	Servers (1 for Production, 2 for Database & 1 for Dev-Op)	4
2	Firewall	2
3	Router	2
4	Switch	4
5	OS License / Support per annum	4
6	Database License / Support per annum	As per requirement
7	SAN Switch	1
8	Security Certification	For all applications
9	STQC Website Quality Certification (Bi-lingual)	1
10	Anti-Virus	3
11	SSL Certificate	1
	Total	

(i) Servers (Application / Database / Development):

Specifications		
Processor	Processor	E5-2650 V4 or higher (meeting all other parameters)
	Cores	12 or more
	Clock Speed	Min 2.20 GHz
	Cache	2.5 MB per Core or Higher
No. of Processors	Quantity	2 Processors
	Architecture	64 Bit
Server Type	Rack	Yes
	Size	2U/4U

Specifications		
Memory	Capacity	512 GB
	Speed	1.8 GHz or higher
	Type	DDR 4
	Min Free Slots	4
	Advanced ECC	Yes
OS compatibility	Linux	RHEL 6.5 and above
Virtualization Support		Support Xen, KVM, Hyper-V and other leading Hypervisors
Network For redundancy at port level, the following ports should be provided	1 Gbps	Dual Port 1 Gbps (1+1)
	10 Gbps	Quad Port 10 Gbps Ethernet (2+2)
HBA For redundancy at port level, the following ports should be provided	16 Gbps	Dual Port Fibre Channel HBA (1+1)
Local Disks	Type	SAS
	Interface	12 Gbps SAS
	Disk Type	SAS
	Disk Size	2.5" or 3.5"
	Min RPM	10 K
	Quantity	Maximum 24 No of disks per server
	Capacity	Min 24 TB
	Max Disk Size	Max Disk capacity is 1.8 TB for SAS
	Disk	OS Disk (2 x 300 Gb) 12 Gbps SAS Disk Min 10K rpm or higher with Raid-1 configuration adapter.

Specifications		
High Availability		No single point of failure except motherboard.
Power Supply		Dual Redundant Power Supply, Dual Power Source
	Standard/Efficiency	Platinum
	Voltage/Frequency	As per Indian Standards
Cooling	Fans	Dual Redundant
Operating Temp	Environment	20-24 Celsius
Relative Humidity	Environment	40-60 %

(ii) Firewall

Specifications	
Architecture	The appliance has multiprocessing system Architecture for high performance
	System should support Firewall, Application visibility, User awareness, anti-malware with zero day attack prevention, IPsec, VPN, Unlimited users/nodes except VPN
High Availability Features	Capability to detect hardware failure during power up and before going online
	Stateful failover to prevent session losses to minimal.
	Software reconfiguration/ configuration changes are immediate effect
	Support active/active and active/standby failover
	Should support VPN Clustering and Load balancing/sharing
	Support in-built environmental monitoring capabilities.
Other	Concurrent Sessions - minimum of 1000000 and at least 150000 sessions per second
	System Throughput - at least 10 Gbps with all functionality mentioned in "Application and Protocol inspection" section
	Memory at least DRAM - 16 GB or higher at least Flash/SSD Memory 16GB- or higher or any other storage if required
	Ports - 4 Nos of 1 Gbps ports, 8 Nos of 10 Gbps Ports, 2 Nos of 40 G ports
Application and protocol inspection	Advanced Web Browsing (HTTP/(s))
	File Transfers (FTP/(s))
	Electronic mail (SMTP)/Esmtp
	Domain Name System (DNS)
	Simple Network Management Protocol (SNMP)
	Database (SQL*Net)
	Network File System (NFS)
	Internet Locator Service (ILS)
	Network Information services (NIS+)

Specifications	
	Stateful ICMP inspection
	IPv6 transparent
	Time bound, Out bound ACLs
	Inspection engine should support an interface, network or host
	Tunnelled applications (peer-to-peer file sharing or instant messaging)
Support VPN	IKE
	IPsec VPN standards
	PPTP
	168-bit 3DES
	OSPF routing and QOS over VPN
	Diffie Hellman Group 7
	x.509
	Up to 256-bit AES data encryption
Authentication, Authorization and Accounting (AAA) support	RADIUS
	TACACS or TACACS+
	Accounting for management traffic
	Native Active Directory user authentication(VPN only)
	Native SecureID authentication (VPN only)
Other	Port redirection and TCP intercept
	Rack Mountable
	ActiveX blocking
	URL Filtering
	Support against all network and application level attacks ranging from malformed packet attacks to DoS attacks
	Support for ability to customize protocol port numbers
	Support minimum 2048 bit RSA and Diffie-Hellman, SHA-2

Specifications	
	Support for IPv4 and IPv6
DHCP relay	Forwards DHCP requests from internal devices to an administrator-specified DHCP server, enabling centralized distribution, tracking, and maintenance of IP addresses
	Rich dynamic NAT and PAT services
	Static NAT and PAT services
	Policy-based NAT and PAT services
X.509 certificate and CRL support	Supports Simple Certificate Enrollment Protocol (SCEP)-based enrolment with leading X.509 solutions from Baltimore, Entrust, Microsoft, and VeriSign
Management	GUI based management to support for remote monitoring
	Accessible through variety of methods including : Console Port, SSH
	Dedicated Out-of-Management interface
	Support SNMPv1, v2c, v3
	Support for security event logging
	Support real time alerting and notification features and syslog
	Should have the ability to create customizable administrative roles/profiles (monitoring only, read-only access to configuration, VPN administrator, firewall/NAT administrator, etc.)
End point verification	Support for end point authorization based on multiple variables of each VPN connection associated with specific tunnel or session
Software features	Support for RIPv2, OSPFv2, OSPFv3, VLAN, LAN Based failover, DHCP. Support, Static &Dynamic NAT/PAT. Support FTP, etc. Bidirectional NAT, NAT transparency, Split tunnelling VPN
Software	Latest release with all supported features as required
Broadcast Application	Support for Microsoft Networking client server communication
	Support for Oracle SQL and ERP applications
Client VPN	support and not limited to Internal websites/web enabled applications,
	Email-POP3S, IMAP4S, SMTPS.
	Support also telnet, RDP, VNC. MAPI and Application Access support

Specifications	
Mounting	Standard rack mount
Power Supply	Hot Swappable Power supply proposed
	(N+1) redundant power supply proposed
	Dual AC input proposed
	Cooling Fans
	Hot Swappable Cooling Fans
	(N+1) redundant Cooling Fans proposed
Power Specification	Indian power specifications in terms of Phase, Voltage and Frequency
Operating temperature range	20-24 ºC
Operating Relative Humidity range (non-condensing)	40-60 %

(iii) Network Router

Specifications	
Architecture	Chassis based router at least four slots free with multicore processor for expansion
	Redundant route processor and stateful failover support without performance degradation and failover less than 50 ms
	Router support in-service software upgrades and downgrades, should be performed without traffic loss.
	Online insertion and removal of line cards without affecting other line card traffic
	Switch should be IPv6 Certified/IPv6 logo ready
Fast Convergence/High Availability Features	Router Redundancy protocol such as VRRP, BFD (Bidirectional Forwarding Detection) or equivalent protocol.
	Support for instant event notification for interface up/down.
	Non-stop forwarding for protocols like -OSPF, IS-IS,BGP, Interface dampening capability
	Support fast computation and re-computation of SPF while providing instability issues with link state routing protocols such as OSPF, IS-IS and support incremental SPF or equivalent feature for fast convergence
	Router support graceful restart, network operating system for high uptime
System Performance	Minimum performance of 175 Mbps and 200 Gbps of bandwidth
Memory	DRAM – 8GB or Higher Flash Memory -8GB or higher or any other storage from day 1
Ports	8 Nos. of 1GE Base-T ports, 8 Nos. of 10GE SPF+ Ports
Interface types	Interfaces compatibility but not limited to- E1/T1, G.703, Fast Ethernet, Gig Ethernet (Copper+Fiber), 10Gig Ethernet, E3/T3, etc.
L2 protocols	Router shall support Frame Relay, PPP, HDLC and Ethernet encapsulation, MLPPP
	PAP and CHAP authentication
	SSL/IPsec capability

Specifications	
Security Features	Support Access Control List to filter traffic based on Source and destination IP subnet, Source and Destination port, Protocol type (IP, UDP, TCP, ICMP etc.) and port range, Time-based ACLs and QOS Policy support.
	Support for ACL Logging, NAT and PAT
	AAA through RADIUS or TACACS. (or TACACS+)
	Integrated Firewall support for protocols (HTTP, FTP, Telnet, TFTP and SMTP) and Unicast RPF.
	MD5 authentication for routing protocols -RIP2, OSPF, IS-IS, BGP, MPLS
Routing and routing features	Support IPv4 - static route, Default route, RIPv2, OSPFv2, OSPFv3, IS-IS, BGP4, MBGP protocol with advanced features and necessary licenses if any to enable routing protocols as needed.
	Support route redistribution and route filtering, support MPLS features- LDP, L2VPN, traffic engineering with RSVP-TE, Fast reroute Link Node and path protection and Policy Based Routing (PBR), Support MPLS (LDP,L2VPN)and traffic engineering with RSVP-TE, Fast Reroute Link Node, etc. ,
Network Protocols	DNS,DHCP,TFTP, NTP, GRE tunnelling, IP Services, etc.
Quality Of Service	Integrated support Hierarchical QOS policy. Support for congestion avoidance through WRED
	Includes traffic policing, traffic shaping and mark traffic using IP Precedence, DSCP and MPLS EXP. router support at least 30000 hardware queues for deployment of per-user, per-application, per-port QOS.
	Support for traffic classification using various parameters like source physical interface, Source, destination IP, subnet, protocol types, source, destination ports, 802.1p and some well-known application types
Multicast	IPv4 and IPv6 Multicasting, IGMP v1,v2,v3, IGMP snooping, PIM/SM/SSM for ipv4 and ipv6
Other features	Router support all applications like voice, video and data over a converged Infrastructure, support L3VPN, DMVPN, etc., Flexible Packet matching, NBAR/Equivalent
	Support for IP SLA to assure business-critical IP applications and Y.1731 for performance monitoring

Specifications	
Network Management	Router is manageable through local console, Aux Port, Telnet, SSH and web. Support online reconfiguration and configuration role back feature
	SNMPv1,v2, v3,RMON enabled
	Multilevel role based ACLs, Controlled SNMP access through SNMP ACLs
Software	Latest release with all supported features as required
Mounting	Standard 19-in rack with required hardware
Route scale	8K IPv4 and IPv6 unicast routes
Power Supply	Hot Swappable Power supply proposed
	(N+1) redundant power supply proposed
	Dual AC input proposed
Cooling Fans	Hot Swappable Cooling Fans proposed
	(N+1) redundant Cooling Fans proposed
Power Specification	Indian power specifications in terms of Phase, Voltage and Frequency
Operating temperature range	20-24 ºC
Operating Relative Humidity range (non-condensing)	40-60 %

(iv) Network Switch

Specifications	
Architecture	Enterprise class rack mountable switch.
	Switch fabric capacity- 125 Gbps
	Switch forwarding rates - 100 mpps
	10G/Gigabit Ethernet port - 48 Nos. of 10/100/1000 Base-T ports and 2 Nos of 10G SFP+ ports loaded with MMF modules. Switch should be either standalone or clustered (note more than 3 switches, without impacting the overall performance/throughput, availability and ports)
	Support consolidating IP and traditional Ethernet protocols into single media
	Non-blocking switch architecture
	Switch should be Software Defined Networking Ready with Open flow/open stack protocol 1.3 support
	Switch should be IPv6 Certified/IPv6 logo ready
Connectivity	802.3ad based standard port/link aggregation, Jumbo frames, storm control
Switching features	Support but not limited to - L2 Fibre/Copper ports ISL trunks/ equivalent (with same functionality)
	Support at least 1K VLAN and 12K MAC Address
	Switch support auto device discovery and storm control
	DNS,TFTP and NTPv3/v4 protocol
Security	802.1X Network Security and Radius/TACACS ,AAA authentication
	MAC Address filtering based on source and destination address
	support for minimum 1K IPv4 and Ipv6 ACLs like port based/time based, vlan based and Standard/Extended ACLs L2- L4

Specifications	
Network Protocols	DNS,DHCP,TFTP, NTPv3/v4
Quality Of Service	port-based COS assignment and COS trust
	Support committed information rate, rate limiting and flow based rate limiting
	Minimum 8 number of hardware queues per port
Multicast	IGMP v1,v2,v3, IGMP snooping
	Support 1k IPv4 and IPv6 multicast routes
Other features supported	standards such as ieee802.3,802.3ab, ieee802.3ae, ieee802.1D,ieee802.1w,ieee802.1s, ieee802.1p, ieee802.1Q, 802.1x,802.3ad,802.1X,ieee802.3x
Management	SNMP v1, v2c, v3, RMON/RMON-II enabled, SSH, telnet, GUI, Web management
	IGMP Snooping for IPv4 and IPv6, MLD v1 and v2 Snooping
	Switch should support port mirroring feature for monitoring network traffic of a particular port/VLAN/group of ports.
	Built-in real-time performance monitoring capabilities
Software	Latest release with all supported required features as needed
Power Supply	Hot Swappable Power supply proposed
	(N+1) redundant power supply proposed
	Dual AC input proposed
Cooling Fans	Hot Swappable Cooling Fans proposed
	(N+1) redundant Cooling Fans proposed
Power Specification	Indian power specifications in terms of Phase, Voltage and Frequency
Operating temperature range	20-24 ºC
Operating Relative Humidity range (non-condensing)	40-60 %

(v) SAN Switch

S. No	Specifications
1	The enterprise class fiber switch should be quoted with minimum 8 FC ports of 16Gbps speed.
2	The switch should have non-blocking architecture
3	The switch should have support for 4/8/16 Gbps HBAs
4	The switch should have No Single Point of Failure (SPOF) and all the components should be hot swappable without even scheduled down time.
5	The switch should have hot swappable N+1 redundant Power Supply with separate AC inputs
6	The switch should have hot swappable N+1 redundant Cooling Fans
7	The switch should have feature for Non-disruptive firmware update
8	The switch should have Real time performance monitoring reporting tool
9	The switch should have support for POST & online diagnostics
10	The switch should have capability to interface with host based adapters (HBA) of multiple OEM, supporting multiple Operating Systems
11	The switch should have support of all leading SAN / NAS disk arrays and tape libraries
12	The switch should have following security features
13	Must have hardware & Software zoning
14	Policy based security and centralized fabric management
15	Encryption
16	The switch should have Inter Switch linking feature to connect two or more FC switches
17	The switch should have trunking capability. The required software license should be supplied with switch.
18	The switch should Provide Adaptive Networking services such as Quality of Service (QoS)
19	The switch should have high availability feature with no performance degradation of switching operation even when one of the processor card fails

Annexure 9: Pre-Qualification Cover Letter

(To be submitted on the Letterhead of the Bidder)

Date: dd/mm/yyyy

To

Deputy Registrar General (CRS),
Office of the Registrar General, India
2/A Man Singh Road,
New Delhi - 110011

Sub: RFP for Selection of Application Development & Maintenance Agency for CRS and SRS

Ref: Tender No: <No> Dated <DD/MM/YYYY>

Dear Sir,

We, the undersigned, offer to provide Application Development & Maintenance to ORGI with reference to your Request for Proposal dated **<insert date>**and our Proposal. We are hereby submitting our Pre-qualification bid.

We hereby declare that all the information and statements made in this Pre-qualification bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We agree to abide by all the terms and conditions of all the volumes of this RFP document. We would hold the terms of our proposal valid for 90 number of days from the date of submission of the proposal.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

_____

Signature of Authorized Signatory (with official seal)
Name :
Designation :
Organization Name :
Registered Address of Organization:
Current Address of Organization :
Telephone & Fax :
E-mail address :

Annexure 10: Format for Project Experience Citations

S. No.	Item	Bidder's Response
1	Name of Bidder entity	
2	Assignment Name	
3	Name & Address of Client	
4	Approximate Value of the Contract	
5	Duration of Assignment (months)	
6	Start Date (month/year)	
7	Completion Date (month/year)	
8	Narrative description of the project	
9	Details of Work that defines the scope relevant to the requirement	
10	Documentary Evidence attached	

Annexure 11: Format for Declaration by the Bidder for not being Black-listed

(To be submitted on the Letterhead of the Bidder)

Dear Sir,

We confirm that our Company **<name of company>** as on date of submission of the proposal is not been blacklisted by any Private/Central /State Government/PSU or any other Organization and agencies in India for corrupt, fraudulent or any other unethical business practices.

Sincerely,

Name & Designation of the Authorized Signatory

Annexure 12: Format for Authorization Letters from OEMs

(To be submitted on the Letterhead of the OEM)

To

Deputy Registrar General (CRS),
Office of the Registrar General, India
2/A Man Singh Road,
New Delhi – 110011

Sub : Authorization Letter to M/s. ---------- for the participation in the bid for Selection of Application Development & Maintenance Agency for CRS and SRS

Ref : Bid No: <No> Dated <DD/MM/YYYY>

Sir,

We _____, (name and address of the manufacturer) who are established and reputed manufacturers of _____ having factories at _____ (addresses of manufacturing / development locations) do hereby authorize M/s _____ (name and address of the Bidder) to bid, negotiate and conclude the contract with you against the above mentioned bid for the above equipment / software manufactured / developed by us.

We herewith certify that the IT infrastructure proposed in the RFP are **not end-of-the life as well as end-of-sale** and we hereby undertake to support these equipment / software for the duration of **minimum 5 years from the date of submission of the bid**.

Yours Sincerely,

For and on behalf of M/s _____(Name of the manufacturer)

Signature :

Name :

Designation :

Address :

Company Seal:

Annexure 13: Format for Non-Disclosure Agreement

This Non-Disclosure Agreement ("Agreement") is made and entered into **_____ day of _____ 2018** by and between …… ORGI having its office at _____ (hereinafter referred to as 'ORGI')
And ……..**,** having its office at _____ (hereinafter referred to as 'ADMA')
Whereas, ORGI and ADMA have entered into a Contract/Agreement bearing reference number _____ dated _____ for _____provision of _____ (hereinafter referred to as 'Contract'); and

Whereas, ORGI may disclose to ADMA certain information which is confidential and proprietary in nature and wishes to protect such information from unauthorized disclosure and use;
NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements contained herein and in the Contract, the parties agree as follows:

1. **Definitions.** As used herein:

(a) The term "Confidential Information" shall include, without limitation, all information and materials, furnished by ORGI to ADMA in connection with corporates/citizen/users/persons/customers data, products and/or services, including information transmitted in writing, orally, visually, (e.g. video terminal display) or on magnetic or optical media, and including all proprietary information, customer & prospect lists, trade secrets, trade names or proposed trade names, methods and procedures of operation, commercial or marketing plans, licensed document know-how, ideas, concepts, designs, drawings, flow charts, diagrams, quality manuals, checklists, guidelines, processes, formulae, source code materials, specifications, programs, software packages, codes and other intellectual property relating to the ORGI's data, computer database, products and/or services. Confidential Information shall also include results of any tests, sample surveys, analytics, data mining exercises or usages etc. carried out by ADMA in connection with the ORGI's or any government department's information including citizen/users/persons/customers personal or sensitive personal information as defined under any law for the time being in force.

(b) The term, "ORGI" shall include the officers, employees, agents, consultants, contractors and representatives of ORGI and its assigns and successors.

(c) The term, "ADMA" shall include the directors, officers, employees, agents, consultants, contractors and representatives of ADMA, including its applicable affiliates, subsidiary companies and permitted assigns and successors.

2. Protection of Confidential Information. With respect to any Confidential Information disclosed to ADMA or to which ADMA has access, ADMA agrees that it shall:

(a) Use the Confidential Information only for accomplishment of the services to be performed under the Contract and in accordance with the terms and conditions contained herein;
(b) Maintain the Confidential Information in strict confidence and take all reasonable steps to enforce the confidentiality obligations imposed hereunder, but in no event takes less care than it takes to protect the confidentiality of its own proprietary and confidential information and that of its clients;
(c) Not make or retain copy of any Confidential Information of ORGI except as necessary, under prior

written permission from

ORGI, in connection with the services to be performed under the Contract, and ensure that any such copy is immediately returned to ORGI even without express demand from ORGI to do so;
(d) Not disclose or in any way assist or permit the disclosure of any Confidential Information to any person or entity without the express written consent of ORGI except as provided in clause 6 below; and
(e) Return to ORGI, or destroy, at ORGI's direction, any and all Confidential Information disclosed in a printed form or other permanent record, or in any other tangible form (including without limitation, all copies, notes, extracts, analyses, studies, summaries, records and reproductions thereof) immediately upon the earlier to occur of:

(i) expiration or termination of the Contract, or
(ii) on request of ORGI.

(f) Not discuss with any member of public, media, press or any other person about the nature of arrangement entered between ORGI and ADMA or the nature of services to be provided by the ADMA to the ORGI.

3. **Onus.** ADMA shall have the burden of proving that any disclosure or use inconsistent with the terms and conditions hereof falls within any of the exceptions provided in clause 4 below.

4. **Exceptions.** The obligations of confidentiality as mentioned in this Agreement shall not apply to any information:

(a) Which has become generally available to the public without breach of this Agreement by ADMA; or
(b) Which at the time of disclosure to ADMA was known to ADMA free of confidentiality restriction as evidenced by documentation in ADMA's possession; or
(c) Which ORGI agrees in writing is free of such confidentiality restrictions
(d) Is required to be disclosed by law, regulation or Court Order, provided that the recipient gives prompt written notice to the discloser of such legal and regulatory requirement to disclose so as to allow the discloser reasonable opportunity to contest such disclosure.

5. Remedies. ADMA acknowledges and agrees that (a) any actual or threatened unauthorized disclosure or use of the Confidential Information by ADMA would be a breach of this Agreement and may cause immediate and irreparable harm to ORGI; (b) ADMA damages from such unauthorized disclosure or use may be impossible to measure accurately and injury sustained by ORGI may be impossible to calculate and remedy fully. ADMA acknowledges that in the event of such a breach, ORGI shall be entitled to specific performance by
ADMA of ADMA's obligations contained in this Agreement. ADMA shall indemnify, save, hold harmless and defend ORGI promptly upon demand and at its expense, any time and from time to time, from and against any and all suits, proceedings, actions, demands, losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which ORGI may become subject, in so far as such Losses arise out of, in any way relate to, or result from breach of obligations under this Agreement by ADMAORGIORGI. ORGIADMA

6. Need to Know. ADMA shall restrict disclosure of Confidential Information to its employees and/or consultants who have a need to know such information for accomplishment of services under the Contract provided such employees and/or consultants have agreed to abide by the terms and conditions of this

Agreement and agree that they shall not disclose such Confidential Information to any affiliates, subsidiaries, associates and/or third party without prior written approval of ORGI.

7. Intellectual Property Rights Protection. No license to ADMA, under any trademark, patent, copyright, design right, mask work protection right, or any other intellectual property right is either granted or implied by the conveying of Confidential Information to ADMA.

8. No Conflict. The parties represent and warrant that the performance of their obligations hereunder do not and shall not conflict with any other agreement or obligation of the respective parties to which they are a party or by which the respective parties are bound.

9. Authority. The parties represent and warrant that they have all necessary authority and power to enter into this Agreement and perform their obligations hereunder.

10. Governing Law. This Agreement shall be interpreted in accordance with and governed by the substantive and procedural laws of India and the parties hereby consent to submit to the exclusive jurisdiction of Courts and/or Forums situated at Delhi, India only.

11. Entire Agreement. This Agreement constitutes the entire understanding and agreement of the parties, and supersedes all previous or contemporaneous agreement or communications, both oral and written, representations and under standings among the parties with respect to the subject matter hereof.

12. Amendments. No amendment, modification and/or discharge of this Agreement shall be valid or binding on the parties unless made in writing and signed on behalf of each of the parties by their respective duly authorized officers or representatives.

13. Binding Agreement. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

14. Severability. It is the intent of the parties that in case any one or more of the provisions contained in this Agreement shall be held to be invalid or unenforceable in any respect, such provision shall be modified to the extent necessary to render it, as modified, valid and enforceable under applicable laws, and such invalidity or unenforceability shall not affect the other provisions of this Agreement.

15. Waiver. If either party should waive any breach of any provision of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision hereof.

16. Survival. ADMA agrees that all of their obligations undertaken herein with respect to Confidential Information received pursuant to this Agreement and obligations of indemnity shall survive for a period of 5 years after any expiration or termination of this Agreement.

17. Non-solicitation. During the term of this Agreement and thereafter for a further period of two (2) years ADMA shall not solicit or attempt to solicit ORGI's employees and/or consultants, for the purpose of hiring/contract or to proceed to conduct operations/business similar to ORGI with any employee and/or consultant of the ORGI who has knowledge of the Confidential Information, without the prior written consent of ORGI. This section will survive irrespective of the fact whether there exists a

commercial relationship between ADMA and ORGI.

18. Term. This Agreement shall come into force on the date first written above and, subject to aforesaid clause 16, shall remain valid up to expiry or termination of the Contract.

IN WITNESS HEREOF, and intending to be legally bound, the parties have executed this Agreement to make it effective from the date and year first written above.

For ORGI…….,	For ……
Name:	Name: ……
Title:	Title: …….

WITNESSES:

1.

2.

Annexure 14: Template for Pre-Bid queries

Bidders shall all Pre-Bid queries in spreadsheet in the following format.

#	Page No.	Section (Name & No.)	Statement as per RFP	Query / Clarification Sought by Bidder

Annexure 15: Technical Bid Cover Letter

Bidder's Company Letterhead

Date: dd/mm/yyyy

To

Deputy Registrar General (CRS),

Office of the Registrar General, India

2/A Man Singh Road,

New Delhi - 110011

Sub: RFP for Selection of Application Development & Maintenance Agency for CRS and SRS

Ref: Tender No: <No> Dated <DD/MM/YYYY>

Dear Sir,

Having examined the bid document, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the services to ORGI as required and outlined in the RFP.

We attach hereto the bid Technical response as required by the bid document, which constitutes our proposal.

We undertake, if our proposal is accepted, to provide all the services put forward in this RFP or such features as may subsequently be mutually agreed between us and ORGI.

We agree for unconditional acceptance of all the terms and conditions set out in the bid document and also agree to abide by this bid response for a period of 90 days from the date of submission of bid and it shall remain binding upon us with full force and virtue, until within this period a formal agreement is prepared and executed. This bid response, together with your written acceptance thereof in your notification of award, shall constitute a binding agreement between us and ORGI.

We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered to ORGI is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead ORGI as to any material fact.

We agree that you are not bound to accept the lowest or any bid response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ service specified in the bid response without assigning any reason whatsoever.

It is hereby confirmed that I/We are entitled to act on behalf of our corporation/company/ firm/organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Signature of Authorized Signatory (with official seal)

Name :

Designation :

Address :

Telephone & Fax :

E-mail address :

Annexure 16: Resume Format of the Resources Proposed

1. Name of Staff:
2. Contact Details (Email & Mobile No.):
3. Designation:
4. Areas of Expertise:
5. Date of Birth:
6. No. of Years with the Current Organization:
7. Total Years of Experience:
8. Nationality:
9. Educational Qualification:

S. No.	Qualification Obtained	Institution	Dates

10. Membership of Professional Associations:
11. Professional Certifications:
12. Other Training:
13. Countries of Work Experience:
14. Languages:

S. No.	Languages	Speak	Read	Write

15. Employment Record:

From/To	
Employer	
Position held	
Key Duties Assigned:	

16. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

Name of assignment:	
Year:	
Location:	
Client:	
Main project features:	
Positions held:	
Activities performed:	

Annexure 17: Format for Resource Deployment Plan during Implementation

A resource deployment plan needs to be provided with resources who will be deployed on the project as per deployment plan format provided below:

Name of Staff	Proposed Position	Resource input (in the form of a bar chart)													Total staff
		1	2	3	4	5	6	7	8	9	10	11	12	n	

Annexure 18: Performance Bank Guarantee Format

(For a sum of 10% of the value of the Work Order)

Ref. No. :

Date :

Bank Guarantee No. :

To

PAO Census, MHA

Office of the Registrar General, India

2/A, Man Singh Road,

New Delhi - 110011

THIS INDENTURE made this ---------- day of ---------20------ BETWEEN THE ----------BANK incorporated under the English / Indian Companies Acts and carrying on business in <Address> (hereinafter referred to as 'the bank' which expression shall be deemed to include its successors and assigns) of the first part ----------

inhabitants carrying on business at ----------

in<Address> under the style and name of Messers ----------

(hereinafter referred to as 'ADMA) of the second part Shri----------

THE Office of the Registrar General, India, 2/A Man Singh Road, New Delhi – 110011 (hereinafter referred to as ORGI which expression shall be deemed, also to include his successor or successors for the time being in the said office of ORGI) of the third part and THE <ADDRESS><ADDRESS> (hereinafter referred to as '<<>>') of the fourth part WHEREAS ADMA indemnify and keep indemnified ORGI against any loss or damage that may be caused to or suffered by the Corporation by reason of any breach by ADMA of any of the terms and conditions of the contract that will be entered subsequently (within 15 days) and/or in the performance thereof against Letter of Intent number ---------- dated ---------- for the project **"Selection of Application**

Development & Maintenance Agency for CRS and SRS" of ---------- having Tender No._____ amount Rs.---------- and the terms of such tender / contract require that ADMA shall deposit with ORGI as earnest money and/ or the security a sum of Rs.---------- (Rupees----------) AND WHEREAS if and when any such tender is accepted by ORGI, the contract to be entered into in furtherance thereof by ADMA will provide that such deposit shall remain with and will be appropriated by ORGI towards the Security Deposit to be taken under the contract and be redeemable by ADMA, if they shall duly and faithfully carry out the terms and provisions of such contract and shall duly satisfy all claims properly chargeable against them thereunder AND WHEREAS ADMA are constituents of the Bank and in order to facilitate the keeping of the accounts of ADMA, the Bank with the consent and concurrence of ADMA has requested ORGI to accept the undertaking of the Bank hereinafter contained, in place of ADMA depositing with ORGI the said sum as earnest money and/or the security as aforesaid AND WHEREAS accordingly the Commissioner has agreed to accept such undertaking. NOW THIS AGREEMENT WITNESSES that in consideration of the premises, the Bank at the request of ADMA (hereby testified) UNDERTAKES WITH ORGI to pay to ORGI upon demand in writing, whenever required by him, from time to time, so to do, a sum not exceeding in the whole Rs.---------- (Rupees----------) under the terms of the said tender and/or the contract. The B.G. is valid upto----------

We agree that the decision of ORGI, whether any breach of any of the terms and conditions of the contract and/or in the performance thereof has been committed by ADMA and the amount of loss or damage that has been caused or suffered by ORGI shall be final and binding on us and the amount of the said loss or damage shall be paid by us forthwith on demand and without demur to the Corporation.

"Notwithstanding anything what has been state above, our liability under the above guarantee is restricted to Rs. ---------- only and guarantee shall remain in force upto ----------unless the demand or claim under this guarantee is made on us in writing on or before----------all your right under the above guarantee shall be forfeited and we shall be released from all liabilities under the guarantee thereafter".

IN WITNESS WHEREOF

WITNESS (1) ----------

Name and ----------

Address ----------

WITNESS (2) ----------

Name and ---------- the duly constituted Attorney Manager

Address ----------

The Bank and the said Messrs----------
---------- (Name of the bank)

WITNESS (1) ----------

Name and ----------

Address ----------

WITNESS (2) ---------- for Messrs ----------

Name and ---------- (Name of the contractor)

Address ----------

Have hereinto set their respective hands the day and year first above written.

The undertaking-cum-indemnity bond is binding upon us/our heirs, executers, administrators, and assigns and/or successors and assigns.

_____

Signature of Authorized Signatory: Proprietor/Partners/Directors/POA holder (with official seal)

Place :

Date :

Name :

Designation :

Address :

Telephone & Fax :

E-mail address :

Annexure 19: Commercial Bid Declaration

Bidder's Company Letterhead

Date: dd/mm/yyyy

To

Deputy Registrar General (CRS),

Office of the Registrar General, India

2/A Man Singh Road,

New Delhi - 110011

Sub: RFP for Selection of Application Development & Maintenance Agency for CRS and SRS

Ref: Tender No: <No> Dated <DD/MM/YYYY>

Dear Sir,

We, the undersigned Bidder, having read and examined in detail all the bidding documents in respect of "Selection of Application Development & Maintenance Agency for CRS and SRS" do hereby propose to provide services as specified in the Bid Document referred above.

1. PRICE AND VALIDITY
   - All the prices mentioned in our proposal are in accordance with the terms as specified in the Tender documents. All the prices and other terms and conditions of this proposal are valid for entire contract duration.
   - We hereby confirm that our proposal prices exclude all taxes. Taxes may be paid as applicable.
   - We have studied the clause relating to Indian Income Tax and hereby declare that if any income tax, surcharge on Income Tax, Professional and any other corporate Tax in altercated under the law, we shall pay the same.
2. DEVIATIONS

   We declare that all the services shall be performed strictly in accordance with the Bid Documents and there are no deviations, irrespective of whatever has been stated to the contrary anywhere else in our bid.
3. QUALIFYING DATA

   We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our proposal, we agree to furnish the same in time to your satisfaction.
4. BID PRICE

   We declare that our Bid Price is for the entire scope of the work as specified in the Bid Document. The bid price at which the contract is awarded shall hold good for entire tenure of the contract. These prices are indicated in the subsequent sub-sections of this Section.

5. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the contract is awarded to us, we shall submit the Performance Bank Guarantee in the form prescribed in the Bid Document.

We hereby declare that our proposal is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.

We understand that our proposal is binding on us and that you are not bound to accept any proposal you receive. We confirm that no Technical deviations are attached here with this commercial offer.

Thanking you,

Yours faithfully,

(Signature of the Authorised Signatory)

Name:

Designation:

Address:

Seal:

Date:

Place:

Annexure 20: Commercial Bid Format

A standard BoQ format has been provided along with this RFP document to be filled by all the Bidders. The Bidders should necessarily submit their commercial Bids in the format provided and no other format will be acceptable. The BoQ format for this RFP can be downloaded from the CPP Portal. All cost shall be provided in INR only. No commercial should be mentioned anywhere except in the Commercial Bid.

(A) IT Infrastructure Cost (Hardware & System Software)

Sl. No.	Item Description	Quantity	Unit Cost including all duties, levies etc.	GST & other applicable taxes(On Unit Cost)	Total One-time Cost including GST	Annual Maintenance Charges (AMC) (e.g. Annual Technical Support in case of Software and Onsite comprehensive warranty in case of hardware)									Total AMC Cost including GST & other applicable taxes
						1st Year			2nd Year			3rd Year			
						AMC Cost/unit	GST & other applicable taxes(On Unit Cost)	Total	AMC Cost/unit	GST & other applicable taxes(On Unit Cost)	Total	AMC Cost/unit	GST & other applicable taxes(On Unit Cost)	Total	
A	B	C	D	E	F = C * (D + E)	G	H	I = C * (G + H)	J	K	L = C * (J + K)	M	N	O = C * (M + N)	P = (I + L + O)
1	Server														
2	RDBMS														
3	Operating system														
4	….														

Sl. No.	Item Description	Quantity	Unit Cost including all duties, levies etc.	GST & other applicable taxes(On Unit Cost)	Total One-time Cost including GST	Annual Maintenance Charges (AMC) (e.g. Annual Technical Support in case of Software and Onsite comprehensive warranty in case of hardware)									Total AMC Cost including GST & other applicable taxes
						1st Year			2nd Year			3rd Year			
						AMC Cost/unit	GST & other applicable taxes(On Unit Cost)	Total	AMC Cost/unit	GST & other applicable taxes(On Unit Cost)	Total	AMC Cost/unit	GST & other applicable taxes(On Unit Cost)	Total	
A	B	C	D	E	F = C * (D + E)	G	H	I = C * (G + H)	J	K	L = C * (J + K)	M	N	O = C * (M + N)	P = (I + L + O)
5	Tools														
6	Any other software etc.														
	Total				X0										X1

(B) Application Development Cost of CIRBD and SIRBD

Sl. No.	Item Description	Basic Cost	GST & other applicable taxes	Total Cost including GST
A	B	C	D	E = (C + D)
1	Development, Testing and Integration of CIRBD			
2	Development and Testing of SIRBD including Registration Module & Mobile App			
	Total			X2

(C) Application Development Cost of SRS

Sl. No.	Item Description	Basic Cost	GST & other applicable taxes	Total Cost including GST
A	B	C	D	E = (C + D)
1	Development, Testing and Integration of SRS Application including SRS Mobile App			
	Total			X3

(D) Cost Break-up of Efforts for Application Development (as mentioned in Table B and C)

Sl. No.	Item Description	Implementation Cost				
		No. of Resources	No. of Person Months	Person Month Rate	GST & other applicable taxes (on person month rate)	Total Cost
A	B	C	D	E	F	G=C*D*(E+F)
1	Project Manager					
2	Solution Architect					
3	IT Infrastructure Architect					
4	Database Architect					
5	UI / Web Designer					
6	Analytics Expert					
7	Senior Developer					
8	Developer					
9	Others (E.g. Tester)					
10	Others (E.g. Business Analyst)					
11	Others (E.g. QA)					
	Total					

(E) Certification

Sl. No.	Item Description	Basic Cost	GST & other applicable taxes	Total Cost including GST
A	B	C	D	E = (C + D)
1	GIGW Certification for CIRBD Portal			
2	IT Security Audit and Certification for CIRBD			
3	IT Security Audit and Certification for SIRBD			
4	IT Security Audit and Certification for SRS Application			
	Total			X4

(F) Track 1: Resource Cost for PHP Developers for Maintenance of Existing Central CRS application

Sl. No.	Item Description	Cost in 1st Year			Cost in 2nd Year			Cost in 3rd Year			Total Cost for 3 years including GST & other applicable taxes
		Person Month Cost	GST & other applicable taxes	Total for 1st Year	Person Month Cost	GST & other applicable taxes (On Unit Cost)	Total for 2nd Year	Person Month Cost	GST & other applicable taxes	Total for 3rd Year	
A	B	C	D	E = 12 * (C + D)	F	G	H = 12 * (F + G)	I	J	K = 12 * (I + J)	L = (E + H + K)
1	PHP Developer 1										
2	PHP Developer 2										
	Total										X5

(G) Track-2 & Track-3: Resource Cost for O&M period after Go-Live

Sl. No.	Item Description	No. of Resources	Cost in 1st Year			Cost in 2nd Year			Cost in 3rd Year			Total Cost for 3 years including GST & other applicable taxes
			Person Month Cost	GST & other applicable taxes (On Unit Cost)	Total for 1st Year	Person Month Cost	GST & other applicable taxes (On Unit Cost)	Total for 2nd Year	Person Month Cost	GST & other applicable taxes (On Unit Cost)	Total for 3rd Year	
A	B	C	D	E	F=C*7*(D+E)	G	H	I=C*12*(G+H)	J	K	L=C*12*(J+K)	M=F+I+L
1	Project Manager	1										
2	Database Administrator	1										
3	Application Developer	3										
4	Application Developer(Senior)	2										
5	System Administrator	1										
6	UI / Web Designer	1										
7	Android Developer	1										
	Total											X6

Grand Total of all costs (TC) = X0 + X1 + X2 + X3 + X4 + X5 + X6

The Total Cost (TC) shall be used for evaluation of the Commercial bid.

Note:

a) The person month cost quoted for 2nd and 3rd year should not be less than that of the previous year.
b) If there is any computation error in the unit cost and total cost then the revised total cost will be computed based on the unit cost quoted.
c) Actual no. of resources to be deployed during operations & maintenance of Track-2 and 3 would depend on the Go-Live status of each track and as approved by ORGI prior to deployment.
d) The above commercial tables are for reference only (except table D. The commercials have to be provided in the BoQ template provided along with this RFP and has to be uploaded in the CPP as per instructions. However, the Bidder needs to upload Table D in PDF format along with the commercial bid. The breakup should match with cost referred in Table B and C.

Annexure 21: Format for Power of Attorney

(On stamp paper of value required under law duly signed by bidder for the tender)

Dated: _____

POWER OF ATTORNEY

To Whomsoever It May Concern

Know all men by these presents, we _____ (name and registered office address of the Bidder) do hereby constitute, appoint and authorize Mr. _____ (Name of the Person(s)), domiciled at _____ (Address), acting as _____ (Designation and the name of the firm), as Authorized Signatory and whose signature is attested below, as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Proposal for award of Agreement **"Request for Proposal for Selection of Application Development & Maintenance Agency for CRS and SRS"**, vide Invitation for Tender (Tender Document) dated 12/06/2018, issued by Office of Registrar General of India, including signing and submission of all documents and providing information and responses to clarifications / enquiries etc. as may be required by Office of Registrar General of India (ORGI), New Delhi or any governmental authority, representing us in all matters before Office of Registrar General of India, New Delhi and generally dealing with ORGI in all matters in connection with our Proposal for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

For ----------

(Signature)

(Name, Title and Address)

Accept

(Attested signature of Mr._____)

(Name, Title and Address of the Attorney) Notes:

To be executed by the Bidder

The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a resolution / power of attorney in favour of the Person executing this Power of Attorney for the delegation of power hereunder on behalf of the executants(s).

Annexure 22: Project Scope and Deliverable

Overview of Scope of work

The primary scope of work for ADMA is to design, develop, implement, operate and maintain the CIRBD application for ORGI

As mentioned in Section 1.9, the scope of work is divided into two tracks:

(i) **Track 1 – Maintenance of existing CRS Application**
(ii) **Track 2 – Development of CIRBD & Model SIRBD and Operations & Maintenance of CIRBD**
(iii) **Track 3 – Development of SRS Application and its Operations & Maintenance**

The scope of work have been discussed in detailed in the following sections. The scope provided here is illustrative and is not necessarily exhaustive. ADMA would need to carry out all incidental activities pertaining to the scope of work without any change in terms and conditions.

1.2. Maintenance of existing CRS application of ORGI

ADMA shall study the current operations, as-is architecture of existing CRS application and deploy its resources to operate and maintain the existing CRS application. The maintenance would start from Day 1 of on boarding of ADMA. The following activities shall be carried out by ADMA:

(i) Bug-fixing and enhancement of the existing application as per the requirements of ORGI from time to time.
(ii) Conduct code and configuration reviews of existing CRS application to provide tuning inputs in order to improve the application performance or resolve bottlenecks if any.
(iii) Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of updates & patches to ensure that the system is properly updated.
(iv) Re-installation in the event of system crash/failures.
(v) Maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc.
(vi) Event log analysis generated in all the sub systems including but not limited to servers, operating systems, databases, applications, security devices, messaging, etc. Ensuring that the logs are backed up and truncated at regular intervals.
(vii) Periodic health check of the systems, troubleshooting problems, analysing and implementing rectification measures.
(viii) Ensuring the upkeep of existing systems that would be reused and also incorporate necessary changes for new applications if any during the tenure of the contract.
(ix) Identification, diagnosis and resolution of problem areas pertaining to the CRS application and maintenance of assured SLA levels.
(x) System administration activities shall include tasks including but not limited to setting up the servers, storage, executing software updates when necessary.
(xi) End-to-end management of database on an ongoing basis to ensure smooth functioning of the same.
(xii) Management of changes to database schema, disk space, storage, user roles.
(xiii) Performance monitoring and tuning of the databases on a regular basis including, preventive maintenance of the database as required.

(xiv) Regular backups for all databases in accordance with the backup and archive policies and conduct recovery whenever required with appropriate permissions.
(xv) Management of storage environment to maintain performance at desired optimum levels.
(xvi) Ensuring prompt execution of on-demand backups of volumes, files and database applications whenever required or in case of upgrades and configuration changes to the system.
(xvii) Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.
(xviii) Detection of security vulnerability with the available solutions / workarounds for fixing.
(xix) Operating system hardening through appropriate configuration and patch updates.
(xx) Periodic reviews of domain level rights and privileges.
(xxi) Tracking the changes in hard / soft configurations, changes to applications, changes to policies, applying of upgrades / updates / patches, etc.
(xxii) Plan for changes to be made - draw up a task list, decide on responsibilities, coordinate with all the affected parties, establish and maintain communication between parties to identify and mitigate risks, manage the schedule, execute the change, ensure and manage the port change tests and documentation.

1.3. Design, development of CIRBD, Model SIRBD and SRS applications

The application design and development team of ADMA shall be deployed at ORGI's premises. Before the actual development work starts, ADMA has to design the entire solution architecture. The Bidder for this RFP has to provide the detailed technical solution including proposed architecture, technical specifications and implementation approach in the technical bid. The application development and implementation for the CIRBD, SIRBD and SRS applications can follow the below lifecycle:

(i) Preparation of Software Requirement Specifications

ADMA shall perform a detailed assessment of the business and IT solution requirements as mentioned in this RFP. Additionally, ADMA is required to carry out an exhaustive requirements gathering exercise with ORGI team for understanding the requirements. While doing so, ADMA is expected to do at least the following:

(a) Translate all the requirements into detailed Software Requirements Specification
(b) Develop and follow standardized templates for capturing requirements and system documentation.
(c) Maintain a traceability matrix from SRS stage onwards for the entire implementation.
(d) Obtain the required sign-offs from user groups formed by ORGI.

While functional requirements of the envisaged system are mentioned in Section 4 and Annexure 4 & 5, the detailed requirements will be mutually agreed and decided at the time of implementation.

(ii) Design & Development of CIRBD, Model SIRBD and SRS Applications

ADMA shall consider the scope of work and develop the applications as per the solution details, commission, configure, and implement a solution that meets the CRS requirements mentioned in previous sections. ADMA shall build the solution in compliance with the requirements outlined in this RFP. ADMA needs to comply with the architecture, standards and specifications, functional requirements and other details mentioned in this RFP.

The SIRBD application would be developed based on similar features and functions of the CIRBD application and existing CRS application. The Model SIRBD would have modular design which would allow the states to adopt the SIRBD application with or without the registration module envisaged in SIRBD. **ADMA may re-use design, business logic, code and UI from existing central CRS Application to the extent possible for developing and / or repackaging the registration module for SIRBD. The intent is that there should be maximum reuse of existing CRS application and minimum training need of the users who have been using the existing central CRS Application.**

The ADMA can also study the existing SRS application to understand its limitations and design the revamped SRS application. The SRS application is envisaged to be fully automated with the central SRS application deployed at ORGI and the stakeholders in the states able to access the web-based application for their work by logging in it. Also, mobile application would be developed which would cater to the field functionaries such as PTEs, Supervisors etc. for capturing data from the field.

The source codes of all applications designed and developed for ORGI viz. CIRBD, SIRBD and SRS including mobile app shall be handed over to ORGI for successful Go-Live of the project.

1.4. Procurement, Deployment and Commissioning of IT Infrastructure for CIRBD & SRS Application at the Data Centre of ORGI

ADMA shall provide system integration services to supply and maintain required IT infrastructure at ORGI Data Centre in New Delhi for deployment of CIRBD and any other tools as needed. ADMA shall be completely responsible for the sourcing, installation, commissioning, testing and certification of the necessary IT infrastructure required to deploy the solution at ORGI Data Centre (DC).

ADMA shall ensure that support and maintenance, performance and up-time levels are compliant with SLAs as provided in Section 9.8. To ensure redundancy requirements are met, ADMA shall ensure that infrastructure procured by ADMA has redundancy built in. ADMA shall procure all the necessary underlying solution components required to deploy the CIRBD solution for ORGI.

ORGI will provide the Data Centre premise for hosting the solution. Common infrastructure for hosting the IT infrastructure like racks, power, cooling, UPS, power backup, bandwidth, Common Data Centre facility Maintenance will be provided in ORGI Data Centre. SAN storage can also be provided for CIRBD. ADMA is responsible for sizing the hardware to support the scalability and performance requirements of the solution. The minimum components and technical specifications of the CIRBD system are provided in Annexure 8. ADMA shall ensure that all the IT components supplied are sized adequately and redundancy is built into the architecture that is required meet the service levels mentioned in the RFP. ADMA shall provide the detailed Bill of Material that specifies all the hardware, software and any additional networking components of solution for the Data Centre, in detail in the bid submitted so as to facilitate sizing of Data Centre infrastructure such as racks, bandwidth etc. by ORGI. However, bidder to do their requirement analysis, due diligence of DC and propose required Hardware and Software and quote accordingly.

ADMA shall ensure that effective Remote Management features exist in solution so that issues can be addressed by ADMA in a timely and effective manner; and frequent visits to Data Centre can be avoided.

The IT Infrastructure supplied should have onsite comprehensive warranty and OEM support period of 3 years as mentioned in commercial bid.

1.5. Testing of CIRBD, SIRBD & SRS Applications

(i) ADMA shall prepare the testing strategy, relevant test cases and shall also conduct the testing of various components of the software developed/customized along with the solution as a whole. The testing should be comprehensive and should be carried out at each stage of development as well as implementation.

(ii) ADMA shall demonstrate the testing criteria outlined in the table below prior to implementation as well as during project operations phase. A comprehensive system should be set up that would have the capability to log & track the testing results, upload & maintain the test cases and log & track issues/bugs identified.

(iii) ADMA shall setup the test environment including testing / pre-production / staging servers as required for the entire period of implementation and maintenance. The test environment should be similar to the production environment and would remain with ORGI even after the expiry of the contract.

(iv) ADMA must ensure deployment of necessary resources and tools during the testing phases. ADMA shall perform the testing of the solution based on the approved test plan, document the results and shall fix the bugs found during the testing. It is the responsibility of ADMA to ensure that the end product delivered by ADMA meets all the requirements specified in the RFP. ADMA shall take remedial action based on outcome of the tests.

(v) All tools/environment required for testing shall be provided by ADMA. ADMA needs to prepare and provide all requisite information/documents to CPMU / ORGI and ensure that there is no delay in overall schedule.

(vi) Post Go-Live, the Production environment should not be used for testing and training purpose. If any Production data is used for testing, it should be masked and it should be protected.

(vii) ADMA has to get the CIRBD Security Audited through Cert-In empanelled vendor.

(viii) ADMA has to facilitate GIGW Compliance Certificate from STQC. The empanelled agency has to ensure that the developed website is in compliance with the GIGW guidelines.

(ix) ADMA has to take all the necessary approvals for security audits of the website. The Security Audit certificate has to be taken from CERT-In empanelled agency as per NIC Cyber Security Division requirements.

(x) The cost for certifications shall be included in the services of ADMA.

(xi) ADMA has to develop Standard operating Procedures (SOPs), User manuals documents that will encompass the standards, processes, and the service delivery channels of the website.

(xii) The cost of rectification of non-compliances shall be borne by ADMA.

The following table provides a list of indicative testing that would be conducted by ADMA post deployment of CIRBD and SRS Application:

Type of Testing	Responsibility	Scope of Work
System Testing	ADMA	1. ADMA shall prepare a test plan as well as test cases and maintain it. ORGI may request ADMA to share the test cases and results when required. 2. The testing should be performed through manual as well as automated methods 3. Automation testing tools will need to be provisioned by ADMA
Integration Testing	ADMA	1. ADMA shall prepare and share with ORGI the Integration test plans and test cases 2. ADMA shall perform Integration testing as per the approved plan 3. Integration testing will need to be performed through manual as well as automated methods 4. Automation testing tools will have to be provisioned by ADMA 5. Integration testing would include all data exchanged between various stakeholders
Performance and Load Testing (Benchmarking)	ADMA	1. ADMA shall prepare and share with ORGI the Performance and Load test plans 2. ADMA shall perform Performance and Load testing as per the approved plan 3. ADMA shall install and prepare the test environment, tools, and resources necessary to execute tests 4. The test results must be shared with ORGI when required. 5. Testing tools if required, will have to be provisioned by ADMA.
Security Testing (Including Vulnerability and Penetration testing)	ADMA	1. The solution should demonstrate compliance with security requirements as mentioned in the RFP including but not limited to security controls in the application, network layer and security monitoring systems deployed by ADMA. 2. The solution shall pass vulnerability and penetration testing. The solution should pass web

Type of Testing	Responsibility	Scope of Work
		application security testing for the portal and security configuration review of the baseline infrastructure. 3. The test results must be certified by STQC (the cost for the certification will be borne by ADMA) 4. Security testing will need to be carried out in the exact same environment/architecture as the one setup for production. 5. Security test reports and test cases should be shared with ORGI 6. Testing tools if required, will have to be provisioned by ADMA. 7. During the O&M phase, vulnerability assessment and penetration testing will need to be conducted on yearly basis. 8. ORGI may also involve third party auditors to perform the audit/review/monitoring of the security testing carried out by ADMA.
User Acceptance Testing	ORGI	1.ORGI will perform User Acceptance Testing after each phase of application development and implementation 2. ADMA will need to prepare the User Acceptance Testing test cases 3. UAT will have to be carried out in the exact same environment/architecture as the one set up for Production 4. ADMA should fix bugs and issues raised during UAT and seek approval on the fixes from ORGI before production deployment. 5. Changes in the application as an outcome of UAT shall not be considered as a Change Request. ADMA will need to rectify the observations raised. 6. ORGI may also involve any third party to perform the User acceptance testing.

1.6. Deployment of CIRBD at ORGI and handholding States for deployment of SIRBD

(i) ADMA shall deploy the CIRBD at ORGI Data Centre. Necessary tools and software shall be proposed in the technical bid and supplied by ADMA.

(ii) ADMA will also handhold states who choose to deploy SIRBD in their states. ADMA would be responsible for providing the necessary technical support to such states as and when needed. ADMA will be responsible for coordination with the state team, providing technical guidance, walk-through / presentations, integration with CIRBD including but not limited to making changes to the source code, if required.

(iii) The SIRBD should be fully functional and should be able to consolidate data from other CRS applications in the state and also integrate with CIRBD.

(iv) The rectification of any errors or bugs arising during integration will not be treated as change request and will be done at no additional financial implications to ORGI

(v) ADMA needs to submit a report once the integration is complete incorporating the details regarding the 'lessons learnt' during this phase. Any changes to the CIRBD and/or SIRBD made henceforth will be treated as part of the overall development at no additional costs to ORGI.

1.7. Deployment of SRS Application at ORGI and handholding DCOs and field functionaries

(i) ADMA shall deploy the SRS application at ORGI Data Centre. Necessary tools and software shall be proposed in the technical bid and supplied by ADMA.

(ii) ADMA would also handhold DCOs and would be responsible for providing the necessary technical support as and when needed. ADMA will be responsible for coordination with the DCOs, providing training, technical guidance, walk-through / presentations, if required.

1.8. Migration of Legacy Data from CRS Application to SIRBD

It is envisaged that the Model 1 and Model 4 states would be the primary adopter of SIRBD. Hence, there would be requirement for migration of existing CRS application data of those states to the SIRBD of such states. The following activities would be required:

(i) **Support States in Data Migration**

Migrating the data from the current CRS system to the respective SIRBD will include identification of data migration requirements, collection and migration of data, closing or migration of open transactions, collection and migration of documentary information, and migration of data. The Data to be migrated shall be prepared by ADMA in a usable format and provided to states for migration in their SIRBD.

(ii) **Data Migration Requirements**

(a) Since there could be structural differences in the data as stored currently from the new system there should be a mapping done between the source and target data models that should be approved by ORGI

(b) Prepare consolidated image of the state-wise legacy data for providing to the states who would migrate to SIRBD.

(c) Provide checklists of the data to be migrated to the states for verification, including number of records, validations (where possible), other controls / hash totals. Highlight errors, abnormalities and deviations.

(d) Get final sign off from ORGI / State for migrated / digitized data

(e) At the end of migration, all the data for old registers must be available in the new system

(f) ADMA shall perform mock data migration tests to validate the conversion programs.

(g) ADMA shall generate appropriate control reports before and after migration to ensure accuracy and completeness of the data as per approved data verification/ validation strategy.

Note: These activities will be performed in O&M Phase

1.9. Migration of Legacy Data from existing SRS Application to new SRS Application

The legacy data of the existing SRS application has to be migrated to the new SRS Application. The ADMA as a part of its study shall understand the availability of the existing SRS data and plan to migrate it to the new SRS application after it has been deployed.

1.10. Application Training

ADMA will, as part of the CIRBD / SIRBD, SRS Solution, provide training to the portal users. This shall include:

(i) Finalization of Training plan and strategy

(ii) Preparation of training material for Computer Based Trainings (CBTs) – audio/video, presentations, Functional flow documents, FAQs, etc. and periodic updates to these artefacts for minimum following stakeholders
   (a) ORGI Officials, DCOs
   (b) ORGI Internal Users
   (c) ORGI System Administrators
   (d) Third Party Agencies
   (e) State Teams

(iii) ADMA should nominate personnel who have the right mix of technical and functional domain experience to impart/create the training material

(iv) These trainings can be arranged any time after UAT till completion of operation & maintenance period

(v) The Scope of Work that needs to be undertaken by ADMA for imparting training is given below. The proposed training module is expected to help the Course takers and other stakeholders, including ORGI officials, to undertake their revised roles and responsibilities with ease and without any apprehensions.

(vi) ADMA must assume the following responsibilities:
   (a) ADMA shall provide training to all the stakeholders.
   (b) The training material for imparting training shall be developed by ADMA in consultation with ORGI. ADMA shall submit a softcopy (CD) and hardcopy of the training material to ORGI Team before the training session.
   (c) In case of modifications either in the Training material, proper correspondence with ORGI Team shall be made.
   (d) Training program shall be continuously monitored by ORGI so as to ensure quality standards of the Training. It is the responsibility of ADMA to prepare a feedback mechanism (i.e., printed feedback forms) and get it filled by the participants and submit the same on a regular basis to ORGI Team.

1.11. Operations & Maintenance of CIRBD and SRS Application

ADMA shall deploy its resources to operate and maintain the CIRBD and SRS Applications. The operations & maintenance would start from the day when Go-Live is declared by ORGI for each track. Go-Live for Track-2 would be the day when final acceptance of CIRBD and all states using existing Central CRS application and one selected Model 2 state have been integrated in to the CIRBD. Go-Live for Track-3 would be the day when final acceptance of SRS application including mobile application have been completed. The following activities shall be carried out by ADMA:

(i) Bug-fixing and enhancement of the application as per the requirements of ORGI from time to time.
(ii) Conduct code and configuration reviews of CIRBD & SRS applications to provide tuning inputs in order to improve the application performance or resolve bottlenecks if any.
(iii) Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of updates & patches to ensure that the system is properly updated.
(iv) Re-installation in the event of system crash/failures.
(v) Maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc.
(vi) Event log analysis generated in all the sub systems including but not limited to servers, operating systems, databases, applications, security devices, messaging, etc. Ensuring that the logs are backed up and truncated at regular intervals.
(vii) Periodic health check of the systems, troubleshooting problems, analysing and implementing rectification measures.
(viii) Ensuring the upkeep of existing systems that would be reused and also incorporate necessary changes for new applications if any during the tenure of the contract.
(ix) Identification, diagnosis and resolution of problem areas pertaining to the CIRBD & SRS applications and maintenance of assured SLA levels.
(x) System administration activities shall include tasks including but not limited to setting up the servers, storage, executing software updates when necessary.
(xi) End-to-end management of database on an ongoing basis to ensure smooth functioning of the same.
(xii) Management of changes to database schema, disk space, storage, user roles.
(xiii) Performance monitoring and tuning of the databases on a regular basis including, preventive maintenance of the database as required.
(xiv) Regular backups for all databases in accordance with the backup and archive policies and conduct recovery whenever required with appropriate permissions.
(xv) Management of storage environment to maintain performance at desired optimum levels.
(xvi) Ensuring prompt execution of on-demand backups of volumes, files and database applications whenever required or in case of upgrades and configuration changes to the system.
(xvii) Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.
(xviii) Detection of security vulnerability with the available solutions / workarounds for fixing.
(xix) Operating system hardening through appropriate configuration and patch updates.
(xx) Periodic reviews of domain level rights and privileges.
(xxi) Tracking the changes in hard / soft configurations, changes to applications, changes to policies, applying of upgrades / updates / patches, etc.
(xxii) Plan for changes to be made - draw up a task list, decide on responsibilities, coordinate with all the affected parties, establish and maintain communication between parties to identify and

mitigate risks, manage the schedule, execute the change, ensure and manage the port change tests and documentation

1.12. Helpdesk Setup

ADMA will also setup a helpdesk for internal users and run the helpdesk as soon as they take over the existing CRS application. The helpdesk shall operate as per the business hours of ORGI.

(i) The helpdesk shall be set-up at the premises of ORGI
(ii) Helpdesk shall service ORGI stakeholders located in different geographical regions in India
(iii) The users may contact the helpdesk personnel through phone call and email.
(iv) The helpdesk shall provide technical support for any informational, incidental & operational queries related to CIRBD, SIRBD, new SRS application and existing CRS application.
(v) The team members from the team composition mentioned in Section 7.3.1 may be utilized for helpdesk operations
(vi) ADMA must ensure that the delivery and quality of work shall not be hampered if they choose to utilize any existing resource as a part of the helpdesk team.

1.13. Deployment of Resources

This section outlines guidelines for staffing and provisioning of manpower for implementation of CRS system by the selected ADMA.

(i) ADMA's operations would be carried out onsite at ORGI premises in New Delhi. ADMA is required to deploy the proposed manpower at ORGI.
(ii) ADMA should, to the best of its efforts, avoid any change in the organization structure proposed for execution of the scope of services or replacement of any manpower resource.
(iii) If the same is however unavoidable, due to circumstances such as the resource leaving ADMA's organization, ADMA shall promptly inform ORGI in writing.
(iv) In case of replacement of any manpower resource, ADMA should ensure efficient knowledge transfer from the outgoing resource to the incoming resource and adequate hand-holding period and training for the incoming resource in order to maintain the continued level of service.
(v) The replaced resource shall be deployed only after prior approval of ORGI
(vi) ORGI may at any time object to and require ADMA to remove forthwith from the Project Site any authorized representative or employee of ADMA or any person(s) of ADMA's team, if, in the opinion of ORGI the person in question has misconducted or his/her deployment is otherwise considered undesirable by ORGI's Representative. ADMA shall forthwith remove and shall not again deploy the person without the written consent of ORGI.
(vii) ORGI may at any time object to and request ADMA to remove from the sites any of ADMA's authorized representative including any employee of ADMA or his team or any person(s) deployed by ADMA or his team for professional incompetence or negligence or for being deployed for work for which he is not suited.
(viii) ORGI shall state to ADMA in writing his reasons for any request or requirement pursuant to this clause. ADMA shall promptly replace every person removed, pursuant to this section, with a competent substitute, and at no extra cost to ORGI.
(ix) All manpower resources deployed by ADMA for execution of the Agreement must strictly adhere to the attendance reporting procedures and make their services available for the entire reporting time period at ORGI's Office or any other location designated by ORGI.
(x) ADMA shall maintain attendance report that shall be submitted on a monthly basis to ORGI.

1.14. Logistics Requirement of the Personnel

ADMA shall be responsible for the deployment, transportation, accommodation and other requirements of all its employees required for the execution of the work and provision of services for all costs/charges in connection thereof.

For CRS, the ADMA will have to travel to one Non-CRS state for providing support to the state team in deployment of SIRBD. During the time of on-boarding of states in CIRBD, handholding of states may require selected resources from ADMA to travel to such states as per requirements.

For SRS, the ADMA will have to visit at least 4 DCOs in various states for assessment and requirement gathering. During, implementation stage, field visits may be needed for deployment, testing etc.

The Bidder needs to factor the logistic cost in their commercial bid. No additional cost would be provided to the ADMA.

1.15. Facilities ADMA shall provide to its staff

(i) The infrastructure or other facilities required for the efficient execution of work under the contract, apart from the facilities promised by ORGI, should be provided by ADMA or its employees who are working under the Agreement.

(ii) At a minimum, ADMA shall provide the following facilities to the staff members deployed.
   a. Laptops/Desktop, Mouse, mobile phones and other necessary accessories subject to conformance to ORGI's security policies
   b. Laptop/Desktop Maintenance and Troubleshooting Service

1.16. Project Planning and Management

The success of the project depends on the proper project planning and management. At the onset, the Bidder shall plan the project implementation in great details and should provide a micro level view of the tasks and activities required to be undertaken in consultation with ORGI. A Central Project Monitoring Unit (CPMU) shall be established by ORGI with external consultants to guide ADMA team for this project. An indicative list of planning related documentation that ADMA should make at the onset is as follows:

i. **Project Schedule:** A detailed week-wise timeline indicating various activities to be performed along with completion dates and resources required for the same
ii. **Communication Plan:** Detailed communication plan indicating what form of communication will be utilized for what kinds of meeting along with recipients and frequency.
iii. **Migration Plan:** The Bidder will be required to submit a migration plan to ORGI for migrating the existing application. Necessary support will be provided by the application vendor of ORGI.
iv. **Progress Monitoring Plan and Reporting Plan:** Detailed Daily, Weekly, Monthly Progress Report formats along with issue escalation format. The format will approved by ORGI to the successful bidder before start of the project.
v. **Standard Operating Procedures:** Detailed procedures for operating and monitoring the CIRBD
vi. **Risk Mitigation Plan:** List of all possible risks and methods to mitigate them.
vii. **Escalation Matrix & Incident Management:** A detailed list of key contact persons with contact details with escalation hierarchy for resolution of issues and problems.

----------END OF RFP----------