REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

Government of Goa

DIRECTORATE OF SETTLEMENT AND LAND RECORDS
PANAJI-GOA

REQUEST FOR PROPOSAL
FOR
SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA
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Disclaimer

The information contained in this 'Request for Proposal' (RFP) document (hereinafter referred to as "RFP") or subsequently provided to bidder(s), whether verbally or in documentary or any other form by or on behalf of the Director, Directorate Of Settlement & Land Records, Panaji-Goa (hereinafter referred to as "DSLR- Panaji") the "Authority" or any of their employees or advisors, on the terms and conditions set out in this RFP.

The purpose of this RFP is to provide all the interested parties with information that may be useful to them in making their technical and financial offers (the "Bid") pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the DSLR- Panaji relation to this project. Such assumptions, assessments and statements do not purport to contain all the information that each bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the DSLR- Panaji its employees or advisors, to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be totally complete, accurate, adequate or correct. Each bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the bidder(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. DSLR- Panaji accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

DSLR- Panaji, its employees and advisors make no representation or warranty and shall have no liability to any person or party, including any bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this RFP.

DSLR- Panaji also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused arising from reliance of any bidder upon the statements contained in this RFP.
DSLR- Panaji may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that DSLR- Panaji is bound to select a bidder or to appoint the selected bidder, as the case may be, for providing services for implementation of GIS Platform for Land Records in the State of Goa as per the scope contained in this RFP; and DSLR- Panaji reserves the right to reject all or any of the bids or bidders without assigning any reason whatsoever.

Bidder shall bear all its costs associated with or relating to the preparation and submission of its bid including but not limited to preparation, copying, postage, online submission, delivery fees, expenses associated with any demonstrations or presentations which may be required by DSLR- Panaji or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the bidder and DSLR- Panaji shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation for submission of the bid, regardless of the conduct or outcome of the bidding process.

About the RFP

In December, 1997 this department under the project name “Dharani” computerized Record of Rights (Form I & XIV) of Tiswadi Taluka and, it became the first Taluka in the State where the public could receive computerized certified copies of Form I & XIV within minutes of applying. Since then the computerization programme of record of Rights has come a long way and the completion of computerization of Record of Rights of all 12 talukas of the state of Goa has been done. The public started receiving computerized certified copies of Form I & XIV in any of the taluka level Mamlatdar offices in the State within no time. More importantly, facility to update the records has also been provided in these taluka offices so that the public may get the latest records.

The DSLR-Panaji, Govt of Goa, which is the custodian of land records of Goa launched “Dharnaksh”, with the key objective to modernize land records, protect land titles and reduce disputes pertaining to lands by adopting computerization, business process automation and information transparency.

As envisaged by Hon’ble CM and Minister of IT, Goa will be a vibrant, dynamic and resurgent unit of federal India and aims to reinforce the position of Goa as an attractive destination and leverage IT / ITES to enhance citizen services and smart governance through e-Governance & g-governance in the state.
Although, Geo-spatial technology is in use at various levels in different Departments but potential of the Geospatial system has not yet been explored and leveraged in public administration & governance for planning and effective decision Support.

Since digitalized and accurate Land Records Information provides backbone to IT & location based Decision Support, an intensive need was felt for a collaborative and Integrated Geo-Spatial Platform for preparation and effective sharing of available Land Records data in the form of Simple-to-use Apps for all stakeholders for GIS based planning, analysis, operations, monitoring and DSS requirements.

The DIRECTOR, DIRECTORATE OF SETTLEMENT & LAND RECORDS, Panaji invites proposals to provide services as per terms and conditions set out in this RFP document. You are invited to participate in the bid process as per the eligibility and technical qualification criteria of this RFP.

Tender Notice
Government of Goa
DIRECTORATE OF SETTLEMENT & LAND RECORDS,
Panaji – Goa.

REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

DIRECTOR, DIRECTORATE OF SETTLEMENT & LAND RECORDS, Panaji on behalf of Governor of Goa invites proposal from reputed and experienced Agencies/Companies/Organizations to participate in the competitive bidding process for "Implementation of GIS Platform for Land Records preparation, management & dissemination in the State of Goa.

The Bidders are required to refer to the tender documents for detailed process which is available at www.etender.goa.gov.in or www.tenderwizard.com/goa

The tender submission will be online and deadline to submit the proposals are 02/05/2018 till 15.00 Hrs.

The contact details for the tender are:
The Director,
Directorate Of Settlement & Land Records,
Panaji-Goa
**Letter of Invitation**

The Director,  
Directorate Of Settlement & Land Records,  
Panaji – Goa.

The Director, Directorate Of Settlement & Land Records, Panaji invites proposals for the following work from the Agencies/Companies/Organizations having similar work experience.  
The details of Tender Fees and Earnest Money Deposit are as below:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Work</th>
<th>Earnest Money Deposit (INR)</th>
<th>Tender Fee (INR)</th>
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<tbody>
<tr>
<td>1.</td>
<td>REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT &amp; DISSEMINATION IN THE STATE OF GOA</td>
<td>Rs.10,00,000/-</td>
<td>Rs.3,000/-</td>
</tr>
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The Bidders have to submit a non-refundable tender fee online on the e-Tendering Portal [www.etender.goa.gov.in](http://www.etender.goa.gov.in) or [www.tenderwizard.com/goa](http://www.tenderwizard.com/goa).  

The Detailed instructions regarding submission of the tender fee and EMD are available on the e-Tendering portal [www.etender.goa.gov.in](http://www.etender.goa.gov.in) or [www.tenderwizard.com/goa](http://www.tenderwizard.com/goa). The timelines for downloading tenders and submission of technical and commercial bids will be as per the timelines mentioned in the Tender Notice.

THE DIRECTOR, DIRECTORATE OF SETTLEMENT & LAND RECORDS, PANAJI RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL TENDER OFFERS WITHOUT ASSIGNING ANY REASON WHATSOEVER.

Smt. Nila Mohanan, I.A.S.  
Director,  
Directorate Of Settlement & Land Records,  
Panaji – Goa.
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

**Schedule**

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<th>#</th>
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<th>Details</th>
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<tbody>
<tr>
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<td>Tender Reference Number</td>
<td>Tender Reference No. DSLR/DILRMP/GIS/59/2018</td>
</tr>
<tr>
<td>2.</td>
<td>Website for downloading tender document</td>
<td><a href="http://www.etender.goa.gov.in">www.etender.goa.gov.in</a> or <a href="http://www.tenderwizard.com/goa">www.tenderwizard.com/goa</a></td>
</tr>
<tr>
<td>3.</td>
<td>Website for submitting tender offer</td>
<td><a href="http://www.etender.goa.gov.in">www.etender.goa.gov.in</a> or <a href="http://www.tenderwizard.com/goa">www.tenderwizard.com/goa</a></td>
</tr>
<tr>
<td>4.</td>
<td>Date and Time for Downloading tender document</td>
<td>17/04/2018 to 02/05/2018 up to 15:00 hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Non-refundable tender fee</td>
<td>INR 3,000/- to be paid online on the e-Tendering Portal.</td>
</tr>
<tr>
<td>6.</td>
<td>Non-refundable Tender Processing fee</td>
<td>INR 1,500/- to be paid online on the e-Tendering Portal.</td>
</tr>
<tr>
<td>7.</td>
<td>Earnest Money Deposit (EMD)</td>
<td>INR 10,00,000/- valid for the period of 180 days to be paid online on the e-Tendering Portal.</td>
</tr>
<tr>
<td>8.</td>
<td>Last date for submission of Pre-bid Queries on <a href="mailto:dir-land.goa@nic.in">dir-land.goa@nic.in</a></td>
<td>24/04/2018 up to 12:00 hrs.</td>
</tr>
<tr>
<td>9.</td>
<td>Last Date and Time for Submission of tender offers</td>
<td>02/05/2018 up to 15:00 hrs.</td>
</tr>
<tr>
<td>10.</td>
<td>Time and date of Technical bid opening</td>
<td>04/05/2018 up to 11:00 hrs.</td>
</tr>
<tr>
<td>11.</td>
<td>Time and date of Technical presentations by the Bidders</td>
<td>To be declared later</td>
</tr>
<tr>
<td>12.</td>
<td>Time and date for declaration of short-list of bidders for commercial bid opening</td>
<td>To be declared later</td>
</tr>
<tr>
<td></td>
<td>Time and Date of Opening of commercial bid</td>
<td>To be declared later</td>
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<tr>
<td>15.</td>
<td>Contact Telephone Numbers</td>
<td>0832-2422453, 2234360</td>
</tr>
<tr>
<td>16.</td>
<td>Contact Fax Number</td>
<td>0832-2234360</td>
</tr>
<tr>
<td>17.</td>
<td>Contact Email id</td>
<td><a href="mailto:dir-land.goa@nic.in">dir-land.goa@nic.in</a></td>
</tr>
</tbody>
</table>
| 18. | Mode of Payment : ePayment Only          | Mode of Payment towards Tender Document Fee(TDF), eTender Processing Fee(TPF) to be paid online through e-Payment mode via:  
   a. National Electronic Fund Transfer (NEFT) / Real-Time Gross Settlement RTGS). Tenderer requires downloading the pre-printed Challan towards credit of ITG available on e-tender website and making its payment through any of their Bank.  
   Note: Any Payments made through NEFT/RTGS will take 24 hours for its reconciliation. Hence the payments through NEFT/RTGS should be made at least TWO BANK WORKING DAYS in advance before any due date and upload the scanned copy of challans in the e-Tender website as a token of payment.  
   b. Internet Payment Gateway (Debit/ Credit Card of type VISA, MASTERCARD or RuPay.  
   c. Net Banking: Payment can be made through the Internet Banking of Any Bank. |

**Note:** RFP Document can be downloaded only from the below mentioned website. RFP will not be distributed in hard copy by the Department at the Department Premise. All bidders should download the RFP document from these
websites for their consideration and submit tenders online at www.etender.goa.gov.in or www.tenderwizard.com/goa

For assistance on eTender please contact Mr. Dilip Pai – 8888636107, Mr. Rajesh.K – 08554878738, Mr. Kiran - 8600651553
Email: goaetender@gmail.com

1. Introduction

1.1 About GOA

Goa is considered to be an advanced state of the country due to its all-round development and growth. This is evident from various development indicators like high literacy, low birth rate, low maternal mortality rate and high per capita income.

Goa situated along Konkan coast, has a coastline of 105kms. It has a partly hilly terrain on the Eastern side – rising to nearly 1200 mtrs in some parts of the state. In the North, the Terekhol river separate Goa from State of Maharashtra and State of Karnataka lies to the South. The Arabian Sea is situated on the west and in the east the State boundary is shared with Karnataka and Maharashtra.

The State of Goa is divided into two districts i.e. North Goa and South Goa. Further each district is divided into six talukas each. The state has geographical area of 3702 sq.kms

Goa was a Portuguese Colony for over 400 years until 19th December, 1961. The Indian Military Forces liberated Goa with the help of Freedom fighters. Thereafter, the territory was incorporated into the Indian union. On 30th May 1987, Goa was granted full-fledged statehood.

The climate of Goa is generally pleasant and normal throughout the year. The summer temperature varies from 24 degree centigrade to 36 degree centigrade. Monsoon begins normally in the first week of June and the State receives good rainfall at an average of 3130 mm annually, mostly during June to September. There are six important rivers namely Mandovi, Zuari, Sal, Terekhol, Chapora, Talpona and many tributaries.

Goa is a small seaside State in western India, well known globally as a tourist destination with its scenic beaches, old European ethos, carnivals and a mix of cultures spanning the globe.

1.2 GIS Platform for Land Records - Background
Information Technology is playing an important role in the country today. India is now one of the biggest IT capital of the modern world and all the major players in the world IT sector are present today in the country.

As envisaged by Hon'ble CM and Minister of Revenue, Goa will be a vibrant, dynamic and resurgent unit of federal India and aims to reinforce the position of Goa as an attractive destination and leverage IT / ITES to enhance citizen services and smart governance through e-Governance & g-governance in the state.

Although, Geo-spatial technology is in use at various levels in different Departments but potential of the Geospatial system has not yet been explored and leveraged in public administration & governance for planning and effective decision Support.

Since digitalized and accurate Land Records Information provides backbone to IT & location based Decision Support, an intensive need was felt for a collaborative and Integrated Geo-Spatial Platform for effective sharing of available data in the form of Simple-to-use Apps for all stakeholders for GIS based planning, analysis, operations, monitoring and DSS requirements.

1.3 GIS Platform for Land Records - Vision

“To harness GIS technology in transforming GOA into a modern and service driven State through better collaboration, efficiency and effectiveness; and to make Goa, a State with GIS enabled Land Records Information for all matters related to GIS based decision support in Goa”

1.4 GIS Platform for Land Records - Objectives

The establishment of "GOA GIS Platform for Land Records" is envisaged to:

- Leverage Geo-Spatial technology for Geo-enabling Land Records Information to Support the accelerated implementation & monitoring of projects through implementation of Enterprise GIS solutions for efficient DSS and help aligning their objectives for national development.
- Standardize GIS based Land Records data for Departments use, published via standard web services
- Ensure availability of highly accurate Base maps integrated with Land Records information for decision support
- To be a major Support to SMART GOVERNANCE by embedding highly accurate GIS based Land Records Information in all aspects of planning and development at state / district / local levels; bringing transparency and make GIS based Land Records data available at all levels.
Serve the basic needs of citizens by providing access to Land Records information; and also enabling a “crowd sourced” interactive process of citizen involvement in providing feedback.

1.5 Definitions

- “System” means application or software being currently used
- “Bidder” means eligible and reputed companies providing the services as mentioned in Scope of Work
- “Successful Bidder” means the bidder qualified as winner for the Contract as a part of tendering process.
- “Contract” means the agreement entered between respective Government of Goa and the Bidder, as recorded in the Contract form signed by the parties, including all the attachments and appendices thereto, and all documents incorporated by reference therein
- “DSLR, Panaji - Goa” means the Director, Directorate Of Settlement & Land Records, Panaji, Goa.

1.6 Stakeholders of the project

For the success of any project, it is important to identify right stakeholders and classify them correctly. Prioritization of these stakeholders on the basis of the impact of the project on them is an important activity at the beginning of the project. Stakeholders in this project are as follows:

- DSLR’s Project Management Taskforce
- Project Management Unit (PMU)

1.7 General instruction to bidder

1. This RFP is not transferable.
2. Bidders are advised to study the RFP document carefully. Submission of the Bid shall be deemed to have been done after the careful study and examination of the RFP document with full understanding of its implications.
3. All bidders will submit tender fee, EMD, Pre-qualification proposal, technical proposal and commercial proposal.
4. It is required to be noted that the DSLR-Panaji will be the final authority in this regard to award the work to the bidder.
5. The response to this RFP should be full and complete in all aspects. INCOMPLETE or PARTIAL BIDS shall be rejected. The bidder must quote considering the scope of work for all the items asked for in this RFP.

6. Department reserves the right to negotiate the rates with successful bidder in case the rates obtained are found unreasonable by the department.

7. The bidder shall bear all costs associated with the preparation and submission of the bid including cost of presentation for the purposes of clarification of the bid, if so desired by DSLR - Panaji will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

8. Kindly note that the bidder should take care that the costs quoted by the bidder sufficiently covers all expenses that the bidder shall incur for the project's scope of work which includes activities as described in section 5 – Scope of Work in this RFP document.

9. All communications to DSLR - Panaji including this RFP and bid documents shall be signed on each page by the authorized representative of the bidder along with the authority letter attached.

1.8 Important limits and values

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<tr>
<th>#</th>
<th>Parameter</th>
<th>Details</th>
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<tbody>
<tr>
<td>1.</td>
<td>Tender Fee</td>
<td>INR 3,000/-</td>
</tr>
<tr>
<td>2.</td>
<td>Non-refundable Tender Processing fee</td>
<td>INR 1,500/- to be paid online on the e-Tendering Portal.</td>
</tr>
<tr>
<td>3.</td>
<td>Bid Security Amount (Earnest Money Deposit – EMD)</td>
<td>INR 10,00,000/- to be submitted as prescribed in the section 1.27 of this RFP.</td>
</tr>
<tr>
<td>4.</td>
<td>Bid Validity Period</td>
<td>90 days from the date of submission of bids by the bidder(s) which may be extended, if required</td>
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<td>5.</td>
<td>Period for furnishing Performance Bank Guarantee</td>
<td>Within 15 days of the date of notice of award of the contract.</td>
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<td>6</td>
<td>Performance Bank Guarantee Value</td>
<td>10% of the contract value</td>
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<td>7</td>
<td>Performance Bank Guarantee Validity period</td>
<td>3 months after the completion of the contract or completion of the project, whichever is later.</td>
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8. Period for signing contract | Within 15 days from date of receipt of notification of award (issuance of Letter of Intent)

1.9 Tender Form and Tender Fee

The tender document can be downloaded from www.etender.goa.gov.in

The bid proposal submitted by the bidder shall accompany e-Payment mode for the EMD for an amount mentioned in this RFP.

1.10 Timely submission

Bidders are solely responsible for timely submission of the bids. Proposals received after the last date and time of submission will not be considered.

DSLR –Panaji may, at its discretion, extend deadline for submission of bids by amending the bid documents. In such case all rights and obligations of DSLR –Panaji and bidders subject to the deadline will thereafter be subject to the deadline as extended.

1.11 Late bids

Any bid received by DSLR –Panaji after the deadline for submission of bids prescribed by DSLR –Panaji shall be rejected.

1.12 Pre-bid Queries

DSLR –Panaji will host a Pre-Bid Meeting for queries (if any) by the prospective bidders. The date, time and place for the pre-bid meeting are given in the RFP schedule. The representatives of the interested Bidder’s may choose to attend the pre-bid meeting at their own cost. The purpose of pre-bid meeting is to provide a forum to the bidders to clarify their doubts/seek clarifications or additional information, necessary for them to submit their bid.

All queries from the bidders relating to this RFP must be submitted in the format specified below.
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>RFP Document reference (Volume, Section No., page no.)</th>
<th>Content of the RFP Requiring clarification</th>
<th>Clarifications Sought</th>
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These queries should be mailed to the Department email ID (dir-land.goa@nic.in) before the date and time specified in the Project Schedule with email subject line - <<Name of Company>>: Pre-bid Queries in respect of REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA (Tender Reference No).

Queries submitted post the above mentioned deadline or which do not adhere to the format provided may not be responded to by the Department. All the responses to the queries (clarifications/corrigendum) shall be made available on the e-Tender site www.etender.goa.gov.in or www.tenderwizard.com/goa

1.13 Language of the Bid

Bids prepared by the bidder and all subsequent correspondence & documents relating to the bids exchanged by the bidder and DSLR - Panaji shall be written in ‘English’ language. Any printed literature furnished by the bidder, written in another language, shall be accompanied by an accurate English translation, in which case, for purposes of interpretation of the bid, the English translation shall govern.

1.14 Hand written documents, Erasures or Alterations

Offers containing erasures or alterations will not be considered. There should be no hand-written material, corrections or alterations in the offer. Filling up of the information using terms such as "OK", “noted”, "as given in brochure/manual" is not acceptable and may lead to the disqualification of the bid.
1.15 Bid Prices

The bidder shall indicate in the proforma prescribed, the unit rates and total bid prices for the services, it proposes to provide under the Contract. Prices should be shown separately for each items mentioned in the Commercial Bid Format.

The bidder shall prepare the bid based on details provided in the RFP. It must be clearly understood that the Scope of Work is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by Authority. The bidder shall carry out all the tasks in accordance with the requirement of the RFP & with due diligence. It shall be responsibility of the bidder to fully meet all requirements of the RFP and to meet objectives of the project.

If during the course of execution of the project any minor revisions to the work requirements like technical specifications, equipment sizing, etc. are to be made to meet the goals of the project; such changes shall be carried out within the proposed price. If any deviation has a major impact on the commercials, Government of Goa's State Level Project Management Committee shall take appropriate decision and such decisions would be binding on the Bidders.

1.16 Firm Prices

Prices quoted in the bid must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. Department reserves the right to negotiate the prices quoted in the bid to effect downward modification. Bid prices shall be indicated in Indian Rupees (INR) ONLY.

Commercial bid should clearly indicate the price quoted without any ambiguity /qualifications whatsoever and should include all applicable taxes, duties, fees, levies, and other charges as may be applicable in relation to the activities proposed to be carried out.

Prices in any form or by any reason before opening the Commercial Bid should not be revealed, failing which the offer shall be liable for rejection.

1.17 Amendment of RFP document

At any time before the deadline for submission of bids, DSLR – Panaji may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the RFP Document by amending, modifying and/or supplementing the same.
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

Any amendments / associated corrigendum will be available on www.etender.gov.in or www.tenderwizard.com/goa

All such amendments shall be binding on them without any further act or deed on DSLR – Panaji part. Prospective bidders are advised to periodically browse the above mentioned websites to find out any further corrigendum/addendum/notice published with respect to this RFP.

In the event of any amendment, DSLR – Panaji reserves the right to extend the deadline for the submission of the bids, in order to allow prospective bidders reasonable time in which to take the amendment into account while preparing their bids.

1.18 Clarification of offers

To assist in the scrutiny, evaluation and comparison of offers, DSLR – Panaji may at its own discretion, ask some or all bidders for clarification of their offer. The request for such clarifications and the response will necessarily be in writing.

1.19 Opening of bids

Bid proposals will be opened in presence of bidder's representatives (if they are present, else it will be opened in presence of the other representatives and officials present).

DSLR – Panaji will open all bids as per schedule mentioned in "Bidding Schedule" above. If all documents mentioned in each part of proposal are not found, then proposal/bid may be summarily rejected. The bidder's representative willing to attend the opening of the bids shall bring authorization letter and sign the attendance register.

The bidder's name, technical solutions given by bidder, bid prices and presence or absence of requisite bid security and such other details, as DSLR – Panaji at its discretion may consider appropriate, will be announced at the time of corresponding openings.

The bids submitted after due date and time shall not be considered for further evaluation, irrespective of the circumstances.

Note:
1. Dates for Technical presentation and Commercial bid opening will be communicated later as part of scrutiny process.
2. The commercial bids will be opened preferably at the same time, unless due to any unavoidable circumstances, the process get delayed or extended.
1.20 Contacting DSLR - Panaji

No bidder shall contact DSLR - Panaji on any matter relating to its bid, after opening of commercial bid till contract is awarded. If bidder wishes to bring additional information to the notice of DSLR - Panaji, he/she can communicate in writing to address given for correspondence. DSLR - Panaji reserves the right for consideration of such information.

Any effort by bidder to influence DSLR–Panaji its decision on bid evaluation, bid comparison or contract award may result in disqualification of the bidders bid and forfeiture of the bid security amount.

1.21 Bid validity

The proposals shall be valid for a period of 90 days from the last date for submission of the tender proposal valid for a shorter period will be rejected as non-responsive. On completion of the validity period, unless the bidder withdraws his proposal in writing, it will be deemed to be valid until such time that the bidder formally (in writing) withdraws his proposal.

In exceptional circumstances, at its discretion, DSLR–Panaji may solicit the bidder’s consent for an extension of the validity period. The request and the responses thereto shall be made in writing or by fax or email.

1.22 Address for bid correspondence

The Director,
Directorate Of Settlement & Land Records,
Collectorate Building, Swami Vivekanand Road,
Panaji – Goa.

1.23 Award of contract

DSLR – Panaji or Competent Authority of Government of Goa shall finalize the successful bidder as per the evaluation process mentioned in section 4.5 and section 4.6 of the RFP and DSLR - Panaji will award the contract to the successful bidder.
1.24 Right to Accept any Bid and to Reject any or All Bids

DSLR – Panaji reserves the right to accept or reject any Bid. DSLR - Panaji shall be under no obligation to accept the lowest or any other offer received in response to this RFP and to annul the tendering process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for DSLR – Panaji action.

1.25 Notification of Award

Prior to the expiration of the period of bid validity, DSLR – Panaji will notify the successful bidder in writing or by fax or email, that his bid has been accepted. Upon the successful Bidder's furnishing of Performance Security, DSLR – Panaji will promptly notify each unsuccessful bidder.

1.26 Signing of Contract

At the same time as DSLR, Panaji notifies the successful bidder that its bid has been accepted, Government of Goa shall enter into a contract with the successful bidder. Terms and Conditions specified in the RFP document shall become the part and parcel of the contract document.

1.27 Bid Security (EMD – Earnest Money Deposit)

1. The Bidder shall furnish, as part of its pre-qualification bid, Bid Security (EMD) as mentioned in the tender notice and RFP. EMD to be made as E-Payment mode only.

2. The bid security is required to protect the DSLR, Panaji, against the risk of bidder’s conduct, which would warrant the security's forfeiture.

3. Unsuccessful Bidder’s bid security will be discharged/ returned as promptly as possible within 30 days after the award of the contract to the successful bidder.

4. The successful bidder’s bid security will be discharged upon the successful bidder signing the Contract and furnishing the Performance Bank Guarantee.
5. No interest will be payable by the DSLR, Panaji on the amount of the Bid Security.

6. The bid security may be forfeited:
   a) If a Bidder withdraws his bid or increases his quoted prices during the period of bid validity or its extended period, if any; or
   b) In the case of a successful bidder, if the Bidder fails to sign the Contract or to furnish Performance Bank Guarantee within the specified duration.

7. Offers, made without EMD, will be treated incomplete and non-responsive and the same will not be considered.

**1.28 Performance Bank Guarantee**

1. The successful bidder shall at his own expense, deposit with Director, DSLR - Panaji within 15 days of the date of notice of award of the contract or prior to signing of the contract whichever is earlier, an unconditional and irrevocable Performance Bank Guarantee (PBG) from a Nationalized / Scheduled Commercial Bank, for the due performance and fulfillment of the contract by the successful bidder.

2. The performance guarantee shall be denominated in the currency of the contract and shall be in the form of a bank guarantee.

3. This Performance Bank Guarantee will be for an amount equivalent to 10% of contract value. All charges whatsoever such as premium; commission etc. with respect to the Performance Bank Guarantee shall be borne by the successful bidder.

4. The Performance Bank Guarantee shall be valid until the end of 3 months after the completion of the Contract with the successful bidder or completion of the project, whichever is later. Post which the Performance Bank Guarantee will lapse automatically.

5. The Performance Bank Guarantee may be discharged/ returned by Director, DSLR - Panaji upon being satisfied that there has been due performance of the obligations of the successful bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.

6. In the event of the successful bidder being unable to service the contract for whatever reason, Director, DSLR–Panaji would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of Director, DSLR–Panaji under the contract in the matter, the proceeds of the PBG shall be payable to DSLR–Panaji as compensation for any loss resulting from the successful bidder’s failure to complete its obligations under the Contract. Director, DSLR–Panaji shall notify the successful bidder in writing of the exercise of its right to receive such compensation within 14 days from the date of notification, indicating the contractual obligation(s) for which the bidder is in default.
7. Director, DSLR–Panaji shall also be entitled to make recoveries from the successful bidder's bills, performance bank guarantee, 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.

8. The proforma for the PBG is provided in Annexure G of the RFP.

1.29 Fraud and Corruption

DSLR–Panaji requires that bidders must observe the highest standards of ethics during the entire process of tendering and during execution of the contract. In pursuance of this policy, DSLR–Panaji defines, for the purpose of this provision, the terms set forth as follows:

a. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of Director, DSLR–Panaji in contract executions.

b. "Fraudulent practice" means a mis-presentation of facts, in order to influence procurement process or the execution of a contract, to Director, DSLR - Panaji, and includes collusive practice among bidders (prior to or after Proposal submission) designed to establish Proposal prices at artificially high or non-competitive levels and to deprive Director, DSLR–Panaji of the benefits of free and open competition.

c. "Unfair trade practices" means supply of services different from what is ordered on, or change in the Scope of Work which is given in the RFP.

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

DSLR–Panaji shall reject the bid proposal for award of contract, if it determines that the bidder recommended for award, has been found to have been engaged in corrupt, fraudulent or unfair trade practices. Once the contract is signed and if it is noticed that the successful bidder has indulged into the Corrupt / Fraudulent / Unfair / Coercive practices, it will be a sufficient ground for department for termination of the contract and initiate black-listing of the vendor.

1.30 Failure to agree with the Terms & Conditions of the RFP

Failure of the successful bidder to agree with the Terms & Conditions of the RFP/Contract shall constitute sufficient grounds for the annulment of the proposal or the award, in which event DSLR–Panaji may out-rightly reject the proposal or make the award to the next Best Value Bidder or call for new bids.
2. Qualification Criteria and Bid evaluation

2.1 Eligibility and Qualification criteria

**Pre-Qualification criteria for Lead Bidder:**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Clause</th>
<th>Documents Required</th>
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</table>
| 1      | The Bidder should be a proprietorship firm / partnership firm / registered company under Company Registration Act of India engaged in trade or business of computers & peripherals/software development/ IT services /Ecommerce as on the date of issue of the Notice Inviting Tender | *a) Valid documentary proof of:*  
- If a proprietorship firm, Certificate of Registration under central sales Tax (Registration and Turnover Rules 1957) / Vat Registration certificate. / GST certificate  
- If partnership firm / registered company under companies Act, Certificate of incorporation / Registration Certificate.  
- List of board of Directors/partners with shareholdings to be provided for partnership firm / registered company under Company Registration Act of India. |
| 2      | The Bidder should have at least 05years of experience in trade or business of computers & peripherals/software development/ IT services /Ecommerce on the date of issue of Notice Inviting Tender.                                                                                                                                   | *a) Valid documentary proof of:*  
- Copy of work order / client certificate(s) OR  
- Any document evidencing it’s business experience |
| 3      | The Bidder should have its own office within the state of Goa                                                                                                                                                                                                                                                                                                                                                   | *a) Valid documentary proof of:*  
Copy of Municipal / Panchayat/ Trade License / shops and establishment / Registration certificate of establishment bearing specifically the name of the Bidder and a Goa address. |
### REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

**4** The Bidder must have an average annual financial turnover of at-least Rs. 50Lakh over the last 03 financial years ending March 2017.

- a) Valid documentary proof of:
  - Balance sheet clearing indicating the Year & Turnover details. OR
  - CA Certificate certifying average annual turnover for three years or individual turnover for last three years.

**5** The Bidder should submit a banker’s letter from a Financial Institution / Bank indicating the financial plan or support for this project/contract.

- a) Valid documentary proof of:
  - Bankers/Institutions/Finance Company letter indicating the financial plan or support for this project.

**6** The Bidder should have a local support office at Goa with minimum 03 support engineers on the company’s pay roll over the last three years. The list of such employees is to be enclosed with the Technical Bid.

- a) Valid documentary proof of:
  - Certificate from bidder for number of qualified Engineers / professionals employed by the bidder.

**7** The Bidder should have a valid GST Registration as on the date of issue of Notice Inviting Tender.

- a) Valid documentary proof of:
  - Valid Copy of GST Registration

**8** The Bidder shall not be eligible if it has presently been blacklisted by any State/ Central Government/ PSU on the date of Notice Inviting Tender / Bid Submission.

- a) Valid documentary proof of:
  - A signed copy of the undertaking with seal.

### Pre-Qualification criteria for Consortium Partner (Other than Lead bidder)

**1** Consortium is allowed. Consortium shall not consist of more than four companies. (one + three) Consortium Partner/ Bidder

- Copy of Certificate of Registration along with MOA/MoU

- A written undertaking from each of
must be a company in India, registered under the Companies Act 1956. the consortium, duly signed by the authorized signatory, holding a written special power of attorney for this bid on

| 2  | Consortium Agreement of at least one local partner (Goa based) for better coordination, execution and accountability. *Consortium of maximum four partners will be allowed.*   | Duly signed consortium agreement with at least one Goa based partner fulfilling eligibility criteria. |
| 3  | The minimum **average annual turnover** of each of the partners of the consortium should be a minimum of INR. 50 lakhs (Rupees fifty lakh Only) over the last 3 financial years (FY 2014-15, 2015-16 and 2016-17) | Copy of Audited Balance Sheet and Provide copy of the audited Profit & Loss Statement of the company OR CA Certificate showing Turn over details or certifying the average turnover over last 3 years. |
| 4  | Consortium partner should have experience of at least 1 project in the below mentioned categories covering a minimum cumulative geographical area of 1,000 sq.km in last 5 years.   | Order copy / Work Order / PO / Contract and testimonial signed by a competent authority should be submitted. The work order should clearly specify the scope of work for the Project. |
| 5  | Consortium partner should have at least 30 Professionals on their payroll with GIS Application Development experience. | Attach the list of Employees with exposure to Projects and Technologies, duly certified by your firm’s HR department. |
### Pre-Qualification for Original Equipment (Software / Hardware) Manufacturer (OEM):

<table>
<thead>
<tr>
<th>Software OEM</th>
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<tbody>
<tr>
<td><strong>Geo-Spatial Software OEM</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1</strong></td>
<td>The Manufacturer must be among world leaders in providing Geospatial Technology software products and having their presence in India for more than 20 years.</td>
</tr>
<tr>
<td></td>
<td><strong>a) Valid documentary proof of:</strong></td>
</tr>
<tr>
<td></td>
<td>Certificate of incorporation</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>The Manufacturer should be registered under Companies Act, 1956 and should have at least 20+ years of experience in providing Geospatial Technology Products within India as on the date of issue of the Notice Inviting Tender.</td>
</tr>
<tr>
<td></td>
<td><strong>b) Valid documentary proof of:</strong></td>
</tr>
<tr>
<td></td>
<td>Certificate of incorporation</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>The manufacturer should have a valid ISO 9001:2008 certification at its factories.</td>
</tr>
<tr>
<td></td>
<td><strong>a) Valid documentary proof of:</strong></td>
</tr>
<tr>
<td></td>
<td>- Certifications</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>The manufacturer(s) must have an average annual financial turnover of at least Rs. 80.00 Crore during the last 3 financial years ending March 2017 OR in the preceding two financial years and in the current financial year as on the date of the Notice Inviting Tender.</td>
</tr>
<tr>
<td></td>
<td><strong>a) Valid documentary proof of:</strong></td>
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<tr>
<td></td>
<td>- Balance sheet clearing indicating the Year &amp; Turn over details. OR</td>
</tr>
<tr>
<td></td>
<td>- CA Certificate showing Turn over details.</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>The manufacturer should have executed either directly or through its channel partners / associates, at least one single Government order of a value not less than Rs. 150 lakhs in any of the last two financial year ending March 2017 or in</td>
</tr>
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<td></td>
<td><strong>a) Valid documentary proof of:</strong></td>
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<td></td>
<td>- Copy of the Work / Purchase order from the customer.</td>
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###硬件

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<tbody>
<tr>
<td><strong>第6条</strong></td>
<td>制造商应已经实施或正在实施Web-GIS在至少一个州，在印度。</td>
<td><strong>有效证明文件</strong>:&lt;br&gt;- 工作/购买订单的副本。&lt;br&gt;- 从客户处的购货订单。</td>
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</table>

####硬件OEM

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</thead>
<tbody>
<tr>
<td><strong>第1条</strong></td>
<td>制造商必须是5家最大的OEM之一，提供商业办公计算机在印度的供应（根据独立第三方机构的Shipments of desktops as indicated by an independent third party agency such as Gartner / IDC Reports in their latest released reports）。</td>
<td><strong>有效证明文件</strong>:&lt;br&gt;- Gartner / IDC - Report/certificate</td>
</tr>
<tr>
<td><strong>第2条</strong></td>
<td>制造商应根据公司法注册，并且至少有4年的制造商业办公计算机的经验（在印度的任何工厂）。</td>
<td><strong>有效证明文件</strong>:&lt;br&gt;- 公司注册证书&lt;br&gt;- 企业注册证书</td>
</tr>
<tr>
<td><strong>第3条</strong></td>
<td>制造商应具备ISO 9001:2000或ISO 14001或ISO 17001或其他更高的认证。</td>
<td><strong>有效证明文件</strong>:&lt;br&gt;- 认证声明</td>
</tr>
</tbody>
</table>
| **第4条** | 制造商（s）必须在过去3个财政年度结束的2017年3月，保持至少500.00亿卢比的年度财务周转率。 | **有效证明文件**:<br>- 年度财务报表清理表明年度及周转率详情。<br>- CA证书显示周转率详情。
| 5 | The manufacturer should have executed either directly or through its channel partners / associates, at least one single Government order of a value not less than Rs. 100 lakhs in any of the last two financial year ending March 2017 or in the current financial year as on the date of issue of the Notice Inviting Tender | a) Valid documentary proof of:
- Certifications of satisfactory execution of the order from the customer |
| 6 | The manufacturer should provide onsite support | a) Valid documentary proof of:
A letter of undertaking that Onsite support will be provided |
| 7 | The manufacturer shall not be eligible if it has been presently blacklisted by any State/ Central Government/ PSU on the date of the Notice Inviting Tender / Bid Submission | a) Valid documentary proof of:
-A signed copy of the Undertaking with seal. |

**Manufacturer’s Authorization Letters for Hardware and Software**

The Bidder/consortium offering the goods/systems from the third party manufacturers is **mandatory to submit standard Manufacturer’s Authorization Letter** for the offered Hardware and Software.

If the bidder itself claims to be the manufacturer of the Hardware and Software such bidder shall provide the proof of being the manufacturer and need not provide the authorization for the offered goods/systems it manufactures.

**If the bidder / consortium member is not the manufacturer of the offered goods, non-submission of Manufacturer’s Authorization Letter(s) from the Manufacturer(s) shall result in rejection of the bid.**

**Any bid not submitted as per the above clause shall be deemed rejected.**

**Note:**

1. In case of a consortium, the same shall consist of minimum 2 partners out of which one shall be a local partner (Goa Based) fulfilling eligibility criteria so as to ensure smooth coordination/ execution and accountability and not consist of more than four companies/corporations and the local partners shall be designated as a "Lead Partner/Bidder"

2. The MoU/ Agreement, on an applicable denomination stamp paper, between the Lead partner and the Consortium partner(s) for their exclusive association for this bid and joint responsibility for the respective scope for the entire period of the Project must be submitted along with the Technical Bid. Roles and responsibilities along with the scope of each consortium member must also be spelt out in the MOU/ Agreement.
3. The MOU shall be exclusively for this project and shall be signed by the Chief Executives/Authorized Signatories for both the parties.
4. In Consortium, all the members shall be equally responsible to complete the project as per their roles & responsibilities; however all consortium partners shall give an undertaking for the successful completion of the overall project and shall be jointly and severally responsible for proper execution of the project.

2.2 Technical Evaluation criteria

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Parameter</th>
<th>Points/Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical proposal evaluation for meeting the requirements as per RFP for GIS Platform required by DSLR</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Presentations to DSLR and question answers by DSLR to evaluate the competency of the proposed solution</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Presentation to DSLR on establishing reference Station Network to evaluate the competency of the proposed solution</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Work Plan, Methodologies, Project team experience, schedule as determined by DSLR from technical document offered or specific presentations/discussion</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Total :</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

MINIMUM MARK FOR THE QUALIFICATION IN THE TECHNICAL EVALUATION IS 70 OUT OF 100 (TECHNICAL SCORE). FINANCIAL BIDS OF ONLY THOSE WHO TECHNICALLY QUALIFY WILL BE OPENED.

2.3 Bid Submission

The 3 sections to be submitted are as follows:
1. Pre-Qualification Related Documentation
2. Technical Proposal
3. Commercial Proposal

Each of the 3 sections is required to be submitted by the bidder (lead bidder). DSLR – Panaji will not be responsible for any incomplete or partial submission and it will be not considered. This may also attract disqualification.

<table>
<thead>
<tr>
<th>Pre-Qualification Section</th>
<th>• Bidder’s response to the Pre-Qualification Criteria defined in this RFP shall be submitted online.</th>
</tr>
</thead>
</table>
• The Pre-Qualification related documentation shall be prepared in accordance with the requirements specified in this RFP and in the formats prescribed in the RFP Document.

• Pre-Qualification proposal would be considered only if it contains all the supporting documents along with the required EMD in Original submitted to DSLR - Panaji scanned Copy of EMD is also to be submitted as a part of Online Submission.

• The Original EMD being submitted to DSLR - Panaji office before the Bid Submission Date shall be marked with envelope as
  a) EMD
  b) Tender Reference Number

• Formats for relevant documents to be enclosed in this bid have been mentioned in the Annexure apart from the documents mentioned in the RFP.

• Pre-Qualification Proposal should NOT contain commercials of the Project, in either explicit or implicit form.

<table>
<thead>
<tr>
<th>Technical Proposal</th>
<th>• Technical Proposal shall be submitted online as per the RFP reference number.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The Technical Proposal shall be prepared in accordance with the requirements specified in this RFP and in the formats prescribed in the RFP Document (Annexure E- Technical Bid Format). Along with that bidder should also enclose all relevant documents required for technical evaluation mentioned in Technical Evaluation Framework.</td>
</tr>
<tr>
<td></td>
<td>• Technical Proposal should NOT contain / disclose commercials of the Project, in either explicit or implicit form.</td>
</tr>
<tr>
<td></td>
<td>• Conditional technical proposal are liable for rejection.</td>
</tr>
<tr>
<td></td>
<td>• Bidder to comply with all the specifications of hardware and software as per the RFP. Partial compliance to the specification outlined in the RFP are liable for rejection. Bidder to submit clear compliance document along with technical bid.</td>
</tr>
</tbody>
</table>

| Commercial          | • Financial Quotes shall be Submitted online ONLY in the prescribed |
Proposal format on e-Tendering website.

- Price quotation accompanied by vague and conditional expressions such as "subject to immediate acceptance", "subject to confirmation", etc. will be treated as being at variance and shall be liable to be summarily rejected.

DSLR–Panaji will not accept submission of a proposal in any manner other than that specified in the RFP Document. Proposals submitted in any other manner shall be treated as defective, invalid and rejected.

Pre-Qualification Proposal, Technical and Commercial proposals should be signed by an authorized person of the lead bidder. The Pre-qualification proposal should be submitted along with a certified true copy of a board resolution/power of attorney empowering authorized signatory to sign/act/execute documents binding the consortium partners to the terms and conditions detailed in this proposal.

The same shall be applicable for each of the consortium member. A valid PoA / Board resolution shall be submitted for each of the consortium member.

Proposals must be direct, concise, and complete. DSLR–Panaji will evaluate bidder's proposal based on its clarity and completeness of its response to the requirements of the project as outlined in this RFP.

2.4 Evaluation Committees

The technical bids will be opened before the Tender Evaluation Committee on the e-Tendering system. Tender Evaluation Committee (TEC) constituted by the State Government shall evaluate the tenders. The decision of the Evaluation Committee in the evaluation of the Technical and Commercial bids shall be final. No correspondence will be entertained outside the process of negotiation / discussion with the Committee.

2.5 Bid evaluation

A two tiered evaluation procedure will be adopted for evaluation of proposals, with the Pre-Qualification, Technical evaluation being completed before the Commercial proposals are opened and compared. Two stage bid evaluation shall be followed for the bid evaluation. The
first stage will be Pre-Qualification evaluation against Pre-Qualification criteria and technical evaluation. The second stage will be Commercial evaluation.

The details of evaluation have been explained below:

**a. First stage – Pre-Qualification and Technical evaluation**

The first stage of evaluation would involve examination of the bid documents of each of bidders against the “Eligibility & Qualification Criteria” and submission of EMD & Tender fees. During pre-qualification bid preparation, the bidder is required to strictly adhere to the pre-qualification bid format provided in this document.

All bidders clearing Pre-Qualification stage will be evaluated on the technical evaluation criteria mentioned in the "Technical Evaluation framework". This is to ensure that the technical skill base, experience and financial capacity and other bidder attributes claimed therein are consistent with the needs of this project. DSLR–Panaji may ask bidder(s) for additional information, visit to bidders’ site and/or arrange discussions with their professional, technical faculty to verify claims made in bid documentation.

During technical bid preparation, the bidder is required to strictly adhere to the technical bid format provided in this document. The format for the same has been detailed in Annexure E-“Technical Bid Document Format”.

**Technical Evaluation Framework**

Bidders who have qualified as per the Sections of Pre-Qualification Criteria of this RFP document shall be evaluated and scored by the Tender Evaluation Committee on the basis of technical evaluation criteria mentioned in table section 4.2, assessing each bidder's ability to satisfy the requirements set forth in the document. **Minimum mark for qualification in the Technical Evaluation is 70 out of 100 (Technical Score).**

**Note:**

1. Bidder should give presentation (approx. duration of one hour) with respect to detailed approach and methodology on the evaluation parameters mentioned, at the date and time specified by the department for technical bid presentation.
2. DSLR–Panaji reserves right to visit bidder’s customers where such a similar project execution has taken place.
b. Second Stage – Commercial Evaluation

Commercial Evaluation of only those bidders who obtain minimum 70 marks in Technical Evaluation shall be opened. Total Cost of ownership shall be calculated based on price summary given in Annexure H – “Commercial Bid format”.

Commercial bid opening will be carried out as per the date communicated to bidder post the evaluation of the Technical proposals for each of the individual RFPs. The evaluation done by the Tender evaluation committee will be final and binding on the bidders.

A substantially responsive bid is one, which conforms to the requirements, terms, conditions and specifications of the Request for Proposal without material deviation. (A material deviation is one which affects in any substantial way the functionality, scope, quality, or performance of the deliverables, or which limits in any substantial way, inconsistent with the Request for Proposal.)

DSLR – Panaji reserve the rights to accept or disqualify the proposals in case of any material deviation which would affect unfairly the competitive position of other bidders presenting substantially responsive Bids.

Tender Evaluation committee will examine the bids to determine whether they are complete, whether any computational error have been made and whether the bids are generally in order. DSLR–Panaji may conduct clarification meetings with each or any bidder to discuss any matters, technical or otherwise

Bids received without tender fee and EMD shall be rejected.

DSLR–Panaji may waive any minor informality or non-conformity or irregularity in a Bid, which does not constitute a material deviation.

Commercial proposal of only those bidders who obtain minimum 70 marks in Technical Evaluation shall be opened on e-tendering system. The bidders are required to submit the commercial proposal in the format given in Annexure H – "Commercial Bid format" in the e-tendering system.

1. Commercial bid opening will be carried out as per the date communicated to bidder post the evaluation of the Technical proposals for each of the individual RFPs.
2. L1 shall be the bidder, who is technically qualified and has quoted the lowest cost as per Annexure H – “Commercial Bid format”.

3. In case there is a tie for L1 due to same lowest cost quote from two or more bidders, the bidder who has secured higher marks in the Technical Evaluation process shall be considered as L1.

4. L2, L3, L4, etc. shall be selected as per the same procedure described above as per the increasing order of commercial quote.

L1 is not interested, then L2 will be asked to match L1 rates. Only 1 bidder at a time will be given a chance to match L1. In case the bidder asked to match rates is not ready, then the chance will be given to the next lowest bidder.

In case no other bidder is ready to match L1 rates, the RFP will be processed for re-tendering.

2.6 Rejection Criteria

Besides other conditions and terms highlighted in the RFP, bids may be rejected under following circumstances:

General Rejection Criteria
a. Conditional Bids
b. If the information provided by the Bidder is found to be incorrect/ misleading/fraudulent at any stage / time during the Tendering Process
c. Any effort on the part of a bidder to influence the bid evaluation, bid comparison or contract award decisions
d. Bids received after the prescribed time & date for receipt of bids
e. Bids without signature of person (s) duly authorized on required pages of the bid
f. Bids without power of attorney/ board resolution

Pre-Qualification Rejection Criteria
a. Bidders not complying with the Eligibility Criteria given in this RFP
b. Pre-Qualification bid containing commercial details
c. Revelation of Prices in any form or by any reason before opening the Commercial Bid
d. Failure to furnish all information required by the RFP or submission of a bid not substantially responsive to the RFP in every respect

Technical Rejection Criteria
a. Technical Bid containing commercial details
b. Revelation of Prices in any form or by any reason before opening the Commercial Bid
c. Failure to furnish all information required by the RFP or submission of a bid not substantially responsive to the RFP in every respect

d. Bidders not quoting for the complete scope of Work as indicated in the RFP, addendum (if any) and any subsequent information given to the bidder

e. Bidders not complying with the Technical and General Terms and conditions stated in RFP

f. Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the Scope of work and Service Level Agreements of this RFP

**Commercial Rejection Criteria**

a. Incomplete Price Bid

b. Price Bids that do not conform to the RFP's price bid format

c. Total price quoted by the bidder does not include all statutory taxes and levies applicable

d. If there is an arithmetic discrepancy in the commercial bid calculations, the Evaluation Committee shall rectify the same. If the Bidder does not accept the correction of the errors, its bid may be rejected.

2.7 **Conditional offers**

The Bidder should abide by all Terms and Conditions specified in the RFP Document. Conditional offers shall be liable for disqualification.

3. **Scope of work**

The Directorate Of Settlement & Land Records, Government of Goa intends to engage with competent agency for establishing integrated GIS Platform to meet Land Records digitalization, management & dissemination requirements of the State.

Accurate geo-referenced Land Records data is backbone for mission critical State level GIS requirements; it is expected to establish Reference Station Network in the state for preparing and updating Land Records data with high accuracy.

Hence, Agency is expected to act as a Technical consultant, undertake the activities as requested below in this document, and implement the desired state-of-art Platform in a cost effective manner without compromising on the quality/accuracy of work.
The key activities will include

**Schedule I: Establishment of required Infrastructure**
- Procurement of Software
- Procurement of Requisite Hardware

**Schedule II: Establishment of Reference Station Network**
- Establishment of Reference Station Network to verify & ensure high accuracy in geo-referencing

**Schedule III: Data Preparation & Land Records Digitalization**
- Design & Development of Standardized DSLR Data Model
- Migration of available Spatial & Non-Spatial Data

**Schedule IV: Establishment of GIS Platform for Land Records Management**
- Installation and Commissioning of Platform Framework
- Publish Land Records data as services

**Schedule V: GIS based Web & Mobile Applications for different stakeholders**
- Publish Simple-to-use Web Apps for various stakeholders and Policy makers

**Schedule VI: Deployment of Citizen Portal for sharing Land Information**
- Publish Mobile Apps for Field Verification, Data Updates and Citizen’s Feedback

**Schedule VII: Project Management & Progress Monitoring (Dashboard)**

**Schedule VIII: Implement Regular Update Framework & mechanism**

**Schedule IX: Capacity Building**
This will also include Capacity Building and Support services also, initially for a period of three years.

The detailed scope of this RFP for the DIRECTORATE OF SETTLEMENT & LAND RECORDS is listed in following section.

### 3.1 Schedule I: Establishment of required Infrastructure

#### a. Procurement of GIS Software
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

Enterprise GIS software

Bidder should supply Enterprise GIS software, which meets the requirements of DSLR to geo-enable Land Records Information. Software should meet the following key features:

- Provide **Single integrated collaborative Platform** based Software which should support complete workflow for design, development and dissemination of highly accurate Land Records Information. Solution should support Desktop, Server, Mobile & Cloud Platform
- Software should provide **integrated Content Management, User Management, Viewers with provision to Create, Publish Service & Maps and share with others**
- Should be **fully OGC Compliant** and based upon SoA Web 2.0, Cloud compatible, Open Standards based Architecture.
- Should **support multiple OS** (Windows / Linux), **RDBMS** (Postgres, Oracle, SQL Server, IBM Netzza, HADOOP, HANA etc. and development frameworks like .Net, Java, Mobile etc.
- Provide **Integrated Powerful Enterprise Geodatabase** supporting Versioning, Topology, Raster management, Terrain management, Standards and Interoperability
- Provide environment to develop **Cross Platform Device Independent Apps** – Same App to be accessed on any device, any platform.
- Should provide **Advanced Geo-processing, Geo-tagging, Geo-coding, Geo-referencing tools** with Parcel editing capabilities
- Should provide **Complete Mobile GIS integration** along with Web Responsive Apps – same app developed for Web should be accessed in regular Android / Windows / iOS based Mobile Phones
- Should supports **Multiple APIs** like Flex, Silverlight, JavaScript, HTML5 and Scripting Tools like Python, R etc. required for development of different Web & Mobile Apps.
- Should support **Multiple Protocols & Standards** – SOAP, REST
- Should support **Integrated 2D / 3D interface** with provision for Simulation & Modeling
- Should provide tools for **Advanced Editing and Rule based Cartographic Capabilities**
- Should support **Versioned & Advanced Connected / Disconnected Editing** through Mobile interface with Multi User Support
- Should provide **Integrated Workflow Management**
- Platform should be **Configurable & COTS based** with integrated SDKs & open APIs for Advance Customization
- Should support **integration with ERP, SAP, CRMs, IBM COGNOS and other Enterprise System**
- Should support **Direct access & creation of integrated Maps from within MS Office, Sharepoint, SAP/ERP/Cognos etc.**
- Software should **support all industry specific open data formats** including Lidar, NetCDF, Big Data and should support Sensors, Cameras, IoT devices, Drones etc.
- Should **provide domain specific data models** which are configurable & extendable
- Should provide **Ready-to-use, Integrated Domain Specific Configurable Solutions Templates** and Configurable Dashboards
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

- Should include **Ready-to-use Rich Contents**, Basemap, High Resolution Imagery, Terrain Maps, Topographic Maps, Land use Maps, Open Data Services and Live Feeds from National / International Agencies like IMD, Bhuvan, NIC, NASA, NOVA, USGS etc
- Should provide **Advanced Multi-tier Security with integrated Single Sign-on** and Industry Standard User Authentication like LDAP, Active Directory etc.
- Software Platform should be **fully Scalable & Interoperable** and should support all line departments with unlimited access.
- Finally, Software Platform should be **certified for Government of India Security Audit norms**.

**Desktop GIS Software**

Bidder should supply **Desktop GIS software**, which meet the following key features:

- GIS Desktop software should be capable to manage maps, satellite images, GIS data of various point of interest information, infrastructure and assets etc. It should provide access to free Online 2D, Street, Base map, imagery Services for location reference.
- GIS Desktop software should support adding, updating, editing or deleting GIS data. GIS data modal should support domains, subtype, spatial rules and relationship, joins and spatial references etc. GIS Solution must have a GIS catalog to manage and maintain the GIS data modal. It must support database administration for user creation and management for GIS database.
- GIS Desktop software should have a provision for generation of time bound Geospatial database to enforce export and time restrictions to the GIS database data that is shared with Service providers or other agencies.
- GIS Desktop software should have Spatial adjustment tools including: Rubber sheeting, Transformation, Edge matching, Attribute transfer.
- GIS Desktop software should have On-the-fly dynamic joins between different databases
- GIS Desktop software should be able to create statistics & various statistical operations, viz. create charts and reports, Sort tables by multiple attributes, Populate values based on expression, Summarize data.
- GIS Desktop software should have tools to Create surfaces from sample data using interpolation methods like Inverse distance weighted, Radial-based functions, Kriging methods including Simple, Universal, Indicator and Probability, disjunctive and Empirical Bayesian kriging
- GIS Desktop software should have UNICODE support for Multilanguage attributes
- Import/Export metadata should be supported in GIS Desktop software
- GIS Desktop software should combine multiple data sources including leading industry standard format and author spatial extract, transform, and load (ETL) capabilities in applications.
Database Requirements

Bidder should supply database software

Data needs to be stored in a central database and support the concurrent multiuser editing necessary for many data management and GIS database replication workflows. The RDBMS should support 64 bit operating system and the licenses should be processor perpetual in nature. All data stored in RDBMS must be able to be published via GIS Application software in OGC certified WMS and WFS service. To ensure maximum data interoperability, all vector and attribute must be stored in industry standard RDBMS. The proposed solution should have the capability to consume and serve data directly from supported RDBMS.

b. Procurement of Hardware

Bidder shall supply required Hardware to configure proposed GIS Platform for Land Records to meet geo-spatial management requirements of DSLR. Setup should provide High available environment and needs to be deployed at Goa State Data Centre / DSLR.

Proposed Hardware should include:

- Web Servers - Web Server
- Application Servers - Host Land Records information, services, contents, live feeds and act as Platform Gateway
- Database Server - Provide Industry Standard RDBMS (Oracle /SQL Server/ PostGres) for storage of Spatial / Non-Spatial Enterprise data.
- Workstations - To be deployed at Data Centre / DIRECTORATE OF SETTLEMENT & LAND RECORDS for necessary management and access of information.
- Workstations (with High-end Graphics Card) - For accessing Graphics intensive modeling requirements
- Mobile Devices – Provide GPS enabled Mobile devices which can be used for seamless access and integration of information from field in connected / disconnect mode with GIS Platform
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

- SAN / NAS Storage - It is assumed that Departments will generate around 10 TB of data in next 2 years. Expandable SAN / NAS Storage needs to be provided to support the same.
- Bidder should provide Scalable Hardware, which should meet expectations of GIS Platform for Land Records in next 5 years.
- Additional: Hardware should be proposed as per requirements of proposed Platform.

3.2 Schedule II: Establishment Of DGPS Control Network (GCPN)

The high level workflow expected is as follows:

3.2.1 Part A: Setting up of DGPS Control network

In allotted geographical area and taking geo co-ordinates by using DGPS to ensure high accuracy in geo-referencing of base maps integrated with land records information

1) General approach on methodology
Differential GPS sufficient to achieve the accuracies mentioned in the following sections are to be used. The following are the typical steps involved

Identification of Primary, Secondary and Tertiary Control Point Location using grid provided by Survey of India (SoI) and also his approval prior to establishment of monumentation and GPS observation on ground.

i. Pre-signalization of SoI base Primary Control Points.

ii. All the Primary, Secondary and Tertiary control points erected under the project in Goa should be connected to primary, secondary and tertiary ground control points of the Survey of India (SoI) to ensure connectivity with the National Framework.

iii. Collection and Recording of Attribute information from field.

iv. Taking co-ordinates of GCPs by Static DGPS observations with dual frequency GPS receivers.

v. Completion of establishment of Ground Control Point Network (GCPN) and submission to Department with all deliverables.

vi. Preparation and Delivery of Final Hard copy of ground control point network maps.

vii. Verification and acceptance by the Department.

2) Whole to part concept

i. The whole survey exercise should follow the concept of Whole to Part of Survey. While establishing the control points, the Primary Control Points should be established first, then the Secondary and Tertiary.

ii. GCP's shall be established on the basis of triangle of set base.

iii. Bidder need to identify, establish, undertake monumentation, take necessary readings and submit required information with department as per scope. All the control points should be based on datum given below:

iv. Horizontal Datum : WGS-84 (i.e. the latest version of the World Geodetic System standard for use in cartography)

v. Vertical Datum: MSL, i.e. Mean Sea Level. The precision Bench Mark of the SoI should be used as primary vertical control

3) Recording Requirements for all types of Control Points:
(a) Longitude using WGS 84 datum
(b) Latitude using WGS 84 datum
(c) X in UTM Coordinates
(d) Y in UTM Coordinates
(e) Altitude (Z) from Mean Sea Level
(f) Monument Unique ID

The Primary Control Points of the Survey of India (SoI), provided by static GPS observations with dual frequency GPS receivers, should be used as reference points for preparing district network to link the district with national survey network. In case of non-availability of SoI data of network control points at all places, same kind of data and control points should be established in consultation with SoI and prepared by the Bidder with MSL datum as per below mentioned standards. The primary control points of the SoI will have to be post processed with the precise ephemeris adjusted with the help of Standard Industrial Engineering Software supplied with DGPS to the ITRF co-ordinate system or with a consultation of Survey of India. All the primary and secondary and tertiary control points erected under this project should be connected to Primary and Secondary Ground Control Points of the SoI, to ensure connection to the National Framework. Locations of Base Station, Primary & Secondary Control Points will be identified by the Bidder with the help of grid map provided by SoI/DSLR. Field visits also shall be used to assist the same, if required. The designated project team members of the Authority would visit the locations of Base Station, Primary & Secondary Control Points to ensure the suitability of the site. If it is found un-suitable, another alternate location needs to be identified from field.

4) **Ground Control Point Network:**

   i. **Primary Ground Control Point - Identification of location**
      
      a. The entire State of Goa shall be divided into a grid of 16 x 16 km network. Approximate locations for the proposed control points shall be derived for the respective district from this state wide grid network. The same method shall also be adopted for establishment of Secondary and Tertiary Control points.
b. In the vicinity of ideal location for any Primary Control point, if a Survey of India Control Point (Geodetic Control Point) is available, it can be used as Primary Control Point. If the usage of Survey of India control point is not feasible or if the point is not available on ground in good monumented state, the Bidders are required to establish their own control point. Even if the Bidder is using their own Primary control points, the points need to be connected to the available Survey of India Control points.

c. The following technical specification shall be used for identification of Primary Control Points

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Density</td>
<td>One in every 256 Sq. K.m. (16 km x 16 km) 16 Kms apart on an average</td>
</tr>
</tbody>
</table>
| 2.      | Site Selection | • The site for control points should be in a protected place like within compounds of Government offices/ facilities like schools, community centres, Panchayat offices, hospitals etc.  
• The location should have open sky without obstructions with a cut off angle of 15 degrees from ground.  
• The location strictly should not have any electromagnetic interference like proximity to radio/mobile towers, high tension electric lines, transformers, high frequency dish antennas, radars etc.  
• Should be away from signal jamming area by Defence or any other agency.  
• Locations should have minimal chances of destruction by natural/manmade activities. |

ii. **Monumentation of Primary Control Points:**

All the Primary Control Points are required to be monumented by the Bidders using the following specification.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Size</td>
<td>60 cm x 60 cm x 75 cm</td>
</tr>
</tbody>
</table>
2. Material Pre-casted RCC

3. Ground Fixing 15cm above ground and 60 cm below ground

4. Monumentation Marking Provision to put Steel Alloy plate fixed on the pillar framework of size 120x120x10mm on the top with plummet whole in the centre. Monument Unique ID shall be inscribed on the Steel alloy Plate.

iii. Establishment of Geo-coordinates for Primary Control Points:

The Primary Control Points shall be established using the following technical specifications:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Minimum Observation Time</td>
<td>4 Hours rapid static</td>
</tr>
<tr>
<td>2.</td>
<td>Accuracy</td>
<td>Zero Level. Linking of primary control points with nearest SoI primary control points (Geodetic Control Points) is also required.</td>
</tr>
<tr>
<td>3.</td>
<td>Equipment</td>
<td>Minimum Dual Frequency DGPS observation with 3 machines.</td>
</tr>
<tr>
<td>4.</td>
<td>Recordings required</td>
<td>Minimum Dual Frequency DGPS observation with 3 machines.</td>
</tr>
<tr>
<td>5.</td>
<td>Recordings required</td>
<td>• Longitude using WGS 84 datum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Latitude using WGS 84 datum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• X in UTM Coordinates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Y in UTM Coordinates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Altitude (Z) from Mean Sea Level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monument Unique ID</td>
</tr>
</tbody>
</table>

Criteria Requirement

iv. Numbering scheme for Primary Control points

The Primary Control Points shall be numbered as PDDDDNNN, where DDD shall represent the District code and NNN is counting numbers starting from 1.

a. Geo-tagged Digital Photographs of the Control Points
b. The Selected Bidder is required to take Geo-tagged digital photographs of the control point along with the pole/staff/monument to clearly indicate the control point location.

c. Photos should be taken from minimum two angles so that the location is clearly identifiable.

d. The photos should be named as <Control Point Id>_n where Control Point Id is the name of the control point as per the numbering scheme specified in this document and n is the counting numbers starting from 1.

v. **Secondary Control Point - Identification of location**

The entire State of Goa shall be divided into a grid of 4 x 4 km network. Approximate locations for the proposed control points shall be derived for the respective District from this State-wide grid network. The following technical specification shall be used for identification of Secondary Control Points. Density: One in every 16 Sq.km (4km x 4km) 4kms apart on an average

vi. **Monumentation of Secondary control points**

Bidders are required to establish a point and monument the same using the following specifications.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Size</td>
<td>23cm x 23 cm x 75 cm</td>
</tr>
<tr>
<td>2.</td>
<td>Material</td>
<td>Pre-casted RCC</td>
</tr>
<tr>
<td>3.</td>
<td>Ground Fixing</td>
<td>15cm above ground and 60 cm below ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fixed to the ground using at least 15cms of cement block</td>
</tr>
<tr>
<td>4.</td>
<td>Monumentation Marking</td>
<td>Provision to put Steel Alloy plate fixed on the pillar framework of size 120x120x10mm on the top with plummet whole in the centre. Monument Unique ID shall be inscribed on the Steel alloy Plate.</td>
</tr>
</tbody>
</table>

vii. **Establishment of Geo-coordinates for Secondary Control Points**
The Secondary Control Points shall be established using the following technical specifications:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Minimum Observation Time</td>
<td>• 1 Hour</td>
</tr>
<tr>
<td>2.</td>
<td>Accuracy</td>
<td>• &lt; +/-1cms</td>
</tr>
<tr>
<td>3.</td>
<td>Equipment</td>
<td>• Minimum Dual Frequency DGPS</td>
</tr>
<tr>
<td>4.</td>
<td>Recordings</td>
<td>Required • Longitude using WGS 84 datum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Latitude using WGS 84 datum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• X in UTM Coordinates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Y in UTM Coordinates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Altitude (Z) from Mean Sea Level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monument Unique ID</td>
</tr>
</tbody>
</table>

viii. **Numbering scheme for Secondary Control Points**

The Secondary Control Points shall be numbered as SDDDNNNNN, where DD shall represent the District Code and NNNN is counting numbers starting from Geo-Tagged Digital Photographs of the Control Points

- The Bidder is required to take geo-tagged digital photographs of the control point along with the pole/staff/monument to clearly indicate the control point location.
- Photos should be taken from minimum two angles so that the location is clearly identifiable.
- The photos should be named as <Control Point Id>_n where Control Point Id is the Id of the control point as per the numbering scheme specified in this document and n is the counting numbers starting from 1.

xiii. **Tertiary Control Points - Identification of location**

Tertiary control points shall be identified and established one in every 1 Sq. K.m. (1 km x 1 km) on an average based on the field conditions. It is mandatory to identify and establish tertiary control points at bi-junction /tri-junction points of three villages.

xiv. **Monumentation of tertiary control points**
a. Bidders are required to establish a point and monument the same using the following specification.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Size</td>
<td>15cm x 15 cm x 45 cm</td>
</tr>
<tr>
<td>2.</td>
<td>Material</td>
<td>Pre-casted RCC</td>
</tr>
<tr>
<td>3.</td>
<td>Ground Fixing</td>
<td>• 10 cm above ground and 35 cm below ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fixed to the ground in a pit with coal and lime mixture at the bottom</td>
</tr>
<tr>
<td>4.</td>
<td>Monumentation Marking</td>
<td>Provision to put Steel Alloy plate fixed on the pillar framework of size 120x120x10mm on the top with plummet whole in the centre. Monument Unique ID shall be inscribed on the Steel alloy Plate.</td>
</tr>
</tbody>
</table>

xv. Establishment of Geo-coordinates for Tertiary Control Points

The Tertiary Control Points shall be established using the following technical specification:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Criteria</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Minimum observation Time</td>
<td>• 45 Minutes</td>
</tr>
<tr>
<td>2.</td>
<td>Accuracy</td>
<td>• &lt; +/- 5 cms</td>
</tr>
<tr>
<td>3.</td>
<td>Equipment</td>
<td>• Single/Dual Frequency DGPS</td>
</tr>
<tr>
<td>4.</td>
<td>Recordings Required</td>
<td>• Longitude using WGS 84 datum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Latitude using WGS 84 datum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• X in UTM Coordinates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Y in UTM Coordinates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Altitude (Z) from Mean Sea Level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monument Unique ID</td>
</tr>
</tbody>
</table>

xvi. Numbering scheme for tertiary control points

The Tertiary Control Points shall be numbered as TDDNNNNNN, where DD shall represent the District Code and NNNNN is counting numbers.

xvii. Geo-Tagged Digital Photographs of the Control Points
• The Selected Bidder is required to take geo-tagged digital photographs of the control point along with the pole/staff/monument to clearly indicate the control point location.
• Photos should be taken from minimum two angles so that the location is clearly identifiable.
• The photos should be named as <Control Point Name>_n where Control Point Name is the name of the control point as per the numbering scheme specified in this document and n is the counting numbers starting from 1.

xviii. Auxiliary Control Points
• Best places for affixation: Each Primary, Secondary, Tertiary control point shall be paired with one auxiliary control point, which should be located on permanent structures like bridges, culverts, permanent building corners, etc. The auxiliary control points should be within the line of sight from the primary, secondary and tertiary control points.
• Densification: There shall be one auxiliary point for each secondary and tertiary control point, typically 200 m or more.
• Instrument: Dual/Single-frequency GPS Receiver (as used for main control).
• Accuracy levels required: same as their respective primary, secondary and tertiary control points.
• In case suitable structure is not available during the survey, fresh monumentation may be taken up with specifications similar to that of tertiary ground control points, discussed in preceding paragraphs, the equipments to be used and accuracy of the measurements will also remain the same.
• The Auxiliary Control Points shall be numbered as ADDNNNNN, where DD shall represent the District Code and NNNNN is counting numbers starting from 1.

xix. Preparation and supply of Map control points
A. The Bidders are required to prepare and supply to the concerned DSLR a digital map of control points in geo-referenced point data. The map should be supplied in digital format in the form of a feature layer or a set of feature layers. The dataset should contain the triangulated lines of connection between the control points also.
B. The following deliverables in hardcopy and softcopy (CD/DVD/HDD) format should be submitted by the Bidder upon completion of the task of Establishment of Primary, Secondary and Tertiary Control Points:

a) A layout on A0 Size of Primary, Secondary and Tertiary Control Points on WGS84 grid with unique Monument IDs along with existing SoI Points used in the network.

b) A table outlining the list of Monument IDs, Type of Control Points, Longitude and Latitude using WGS84 datum, X and Y in UTM Coordinates, Altitude Z from Mean Sea Level.

c) Post pointing sheets covering Monument ID, Digital Photograph, Location Map and a brief route description.

d) All Raw data and RINEX data in soft copy from DGPS and Raw data from ETS used for these Points.

e) All Processed data in soft copy from DGPS and ETS used for these points. Should include all processing reports carried out during network adjustments and loop closures from DGPS and ETS.

3.2.2 Part B: DGPS Primary Base stations for GCP Collection using modern technologies

Department as envisaged to bring the existing Resurveyed data to publish on the standard GIS platform quickly, bidder is expected to establish DGPS Base stations (Primary Control Points to be used as) for GCP collection for geo-referencing of Land Records Base Maps (14000 sheets). This activity to go in parallel to Part A activities.

GCP Collection and Geo-referencing:

Bidder should Collect GCPs and performs Geo-referencing with respect to the available base maps and edge matched to maintain the integrity of each. Once edge matched, large area boundaries, major plan metric features, and parcel blocks will be made best-fit to maintaining the original shape feature. From the available inventory; the various data like base maps, parcel boundaries, AutoCAD format, GPS points, topographic maps, drawings, zoning maps shall be geo-referenced and brought under common framework and linked with metadata and projected in geographic coordinate system and UTM projection system.

- Implement a robust mechanism to geo-reference re-surveyed Land Records data
- Collection of GCPs for Geo-referencing: 4 GCPs per Sheet, Approximate 14000 Survey Sheets covering entire state.
• Assess whether data accuracy is within acceptable norms i.e less than 15 cms.
• Publish highly accurate data in GIS ready format for necessary integration with GIS Platform for Land Records

3.2.3 Data Manipulation and Validation:

Bidder should convert the existing System Integrated data including CAD files and various MIS (Dharani and Dhamaksh) data are migrated and linked with GIS datasets. There should be validation checks and reports for the same.

3.2.4 Integration:

Bidder is responsible for a seamless integration of such created and validated Land Records with Sate GIS system for the users.

3.3 Schedule III: Data Preparation & Land Records Digitalization

   a. Design & Develop Standardized State Data Model

For establishment of GIS Platform for Land Records, GIS ready land records datasets are required. As most of these Land Records related datasets are available in different sources and formats, these datasets need to be integrated with platform in a standardized format for sharing and dissemination of information.

Bidder shall conceptualize, design and develop Standardized Land Records Data Model based on State and national standards, which is expandable and can be localized. Bidder should also provide configurable data model, which can be localized as per State / Department’s requirements.

Standardized Data Model should support:

• Standardization of Regional Coordinate System and Datum
• Should support horizontal and vertical projections
• Designed Data Model should be based on global best practices where all different types of Spatial & Non-Spatial Feature Datasets & layers, Annotations, Relationships, Rules, Cartography, domains, Subtypes, Topology etc. can to be organized.
• Data Model should provide expandable schema to integrate available MIS parameters related to Land Records from various data sources.
• Designed Data Model should promote Standardization of Cartography and should provide provision to store Rules, Relationships, and Tables etc.
• Data Model should support and store different types of data formats like Vectors, Rasters, Time Series, Static documents and dynamic datasets.

b. Migration of existing department’s Spatial & Non-Spatial Data

Bidder should provide support to migrate available Spatial and Non-Spatial GIS and Land Records related data in designed Data Model.
Following activities needs to be executed:
• Migration of available GIS ready Land Records Data and integration with designed data model.
• Publishing High Resolution Satellite Imagery provided by the department.
• Integration of available MIS parameters related to Land Records information available from DSLR-Panaji
• Analyze Data Gaps and define sources and mechanism to update data gaps
• Prepare GIS layers with Standardized Cartography i.e. Symbols, Styles, Style Sets etc.
• Establish Rules & Relationships among Spatial / Non-Spatial layers
• Define & implement provision for Backup & Recovery
• Deploy final Enterprise Geo Database integrated with GIS Ready Land Records data.

3.4 Schedule IV: Establishment of GIS Platform for Land Records Management

a. Installation and Commissioning of GIS Platform Framework

• Bidder should conceptualize and deploy GIS Platform for Land Records Framework to support expandable federated environment for geo-enabling all locations of DSLR
• Provision should be implemented to provide Role based Secured Access to Department Users and various other stakeholders
• Provision to be made for seamless integration, which should not require any conversions of data and services available through various State / National / International Sources like DoIT, ISRO, Bhuvan, NASA, NOAA, USGS etc.
• Provision should be provided to publish and access Open Standard based OGC Compliant Services.

b. Publish Land Records data for access through web services

• Bidder should publish Land Records information integrated with associated MIS data in the GIS Platform for Land Records for necessary access and use in various Web Apps, Mobile Apps and Dynamic Dashboards for different stakeholders.
Services Published should support both connected and disconnected Editing and Update features and should support expandable federated environment for geo-enabling all locations of DSLR

3.5 Schedule V: GIS based Web & Mobile Applications for different stakeholders

a. Publish Simple-to-use Dashboards & Web Apps for various stakeholders

The key objective of Goa GIS Platform for Land Records is to implement framework for preparation of HIGH quality GIS based Land Records information and sharing this information with various State Departments. GIS technology / Platform for Land Records should provide and support complete workflow for Land Records preparation, management, update and monitoring requirements. To ensure this bidder is expected to develop and deploy different Web Apps, Mobile Apps and Dashboards for various stakeholders' like

- Policy Makers
- Department Users
- Field Teams
- Citizens

GIS Platform for Land Records integrated with different Apps should support complete Workflow on preparation of GIS based Cadastral Maps covering:

- Integration of survey data into the parcel database.
- Geo-referencing of existing cadastral Maps or creation of Land Records on a large scale
- Linking of land Records with MIS and FMB information
- Parcel editing, address management, valuation analysis, map book production etc.
- Multiple users, to manage, maintain, and publish land record data with a suite of standardized tools that preserve the integrity of the property information.
- Manage an accurate inventory of real property, analyze land value and associated improvements, describe who owns the land, and convey land-use and zoning regulations.
- Efficiently process updates to the parcel data through guided workflows, and securely maintain the data of record.
- Support trends and pattern analysis
There also should be an industry-standard security controls at every level, for every user.

Capable of performing mutation on the digital land records data. With a built-in workflow which moves transactions from one officer to another digitally.

Should enable respective authorities and stakeholders to access accurate Land Records information and to take Strategic decisions in rapidly changing environment.

**b. Publish Mobile Apps for Field Verification & Data Updates**

- As updated information is backbone to various State level initiatives, it is required to deploy Mobile Apps for the Field teams to update Land Records data.
- These Mobile Apps should be device independent, configurable COTS based to support different Field team members.
- Mobile Apps should support Geo-tagging of locations with media & photographs.
- As Network connectivity can be a challenge in Remote areas, these Apps should be designed to support Connected / Disconnected Editing capabilities.

### 3.6 Schedule VI: Deployment of Citizen Portal for sharing Land Information

Under Digital India initiative, it is endeavor of Goa State Government to incorporate transparency in their systems. It is expected that selective Land Records information, will be published and made available as integrated Citizen Portal for the Citizens.

This will help DSLR in updating Land Records Information with high accuracy and gaining Citizen’s Confidence in Government.

### 3.7 Schedule VII: Project Management & Progress Monitoring (Dashboard)

It is very critical for DSLR to ensure smooth execution of various Projects and Schemes announced by Government. Under this initiative, bidder is expected to develop and implement integrated Dashboards for monitoring day-to-day Operations and implement Executive Dashboards for Ministers and Policy Makers for monitoring live status of Key Performance Indicators (KPIs) and overall status of Land Records Computerization.
3.8 Schedule VIII: Implement Regular Update Framework & mechanism

Current / Updated Data is most critical for Success of any mission critical Projects. Under this requirement, agency will ensure to implement a framework where Departments will be able to update their data on regular basis in a secured way. This updated data should be seamlessly made available to Departments dynamically. Mechanism should be implemented to ensure Data currency and information including its last update status for monitoring purpose.

3.9 Schedule IX: Capacity Building

The key objective of GOA DSLR initiative is to ensure that benefits of GIS technologies should be easily accessible to diverse users in governance, enterprises and citizens. Under this, Trainings for capacity building of different departments and user groups should be organized.

4. Terms of Reference:
The activities to be carried out under the project shall comprise of following components:-

4.1 PROJECT IMPLEMENTATION
4.1.1 Detailed Schedule of Activities

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activity</th>
<th>Time Line</th>
<th>Linked Payment milestone</th>
<th>Penalty Applicable (per week per taluka)</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Project mobilization / initiation and detailed System Requirement Study</td>
<td>0-03 Months</td>
<td>10%</td>
<td>0.01%</td>
<td>SRS Documents/ Project Plan / Mobilization plan</td>
</tr>
<tr>
<td>2.</td>
<td>Procurement of Hardware &amp; Software</td>
<td>0-03 Months</td>
<td>Actual</td>
<td>0.01%</td>
<td>Invoice &amp; Delivery Challan and acceptance letter</td>
</tr>
</tbody>
</table>
### 4.1.2 Contract Period

Project period is of 36 months from the award of contract unless terminated earlier. This Contract shall expire after six months of completion of project period.
4.1.3 Project Organization Structure

Roles and Responsibilities of each stakeholder have been mentioned below:

1. Director, DSLR-Panaji
   a. Overall head of this project rollout in the division.
   b. Head of the division level project monitoring team
   c. Representative of the departments for high level meetings like PIC, HPC.
   d. Monitor the progress of the project on a monthly basis
   e. Grievance redressal of the Implementing Agency, in case escalated to that level
   f. Contract signing with Agency.
   g. Release payment to the agency on successful completion of payment mile stones on the basis of work completion certificate from the concerned Authority.

4.1.4 Penalty Clauses

During the entire course of the project, the Director, DSLR - Panaji may choose to levy the penalty on the selected bidder as per the below penalty terms. The details of the penalty terms are specified in the section 4.1 – detailed schedule of activities. Agency should submit their own detailed time schedule with measurable milestones and such schedules should be practicable, reasonable and balanced. Maximum delay permitted any of the mentioned payment milestone will be 8 weeks beyond which the agreement is liable to be terminated and vendor performance guarantee will be forfeited. In such case, DSLR- Panaji reserves the right to make necessary alternate arrangements to complete the project. The overall Penalty / liquidated damages shall not exceed a total of 10% of the Contract amount. Refer section 4.1 for the details of penalty applicable at the respective project milestone.

4.1.5 Training

The selected Bidder shall conduct training sessions to all concerned staff of the department and the allied offices of the department, a proper training plan should be submitted to the Director, DSLR-Panaji for Approval.

5. Terms and conditions

5.1 Payment terms

The payment would happen upon successful completion of the milestones as per mentioned in section 4.1. in Detailed Schedule of Activities on approval by monitoring committee. The payment for the same shall be made as per the formula given below:
Payment for the milestone= [commercial quote for the Milestone on actuals – applicable penalty as per the SLA/penalty clauses]

5.2 Termination of the Contract

Director, DSLR- Panaji reserves the right to cancel the contract at any time, if not satisfied with the services of the successful bidder or there is breach of any of the condition of the Contract by the successful bidder, provided a period of 10 days has lapsed from the date of serving notice on the successful bidder requiring it to remedy the breach and if the breach has continued up to the date of the termination. In this event, the work done till then by the successful bidder shall be taken over by DSLR - Panaji - Goa. DSLR -Panaji - Goa reserves the right to appoint a new bidder and hand over to him all the documents to complete the assignment. In such an event, the successful bidder shall not be entitled to receive any payments upon termination of the contract. In such case, upon termination, DSLR–Panaji may also impose liquidated damages. Notwithstanding anything to the contrary contained in the Contract successful bidder's collective liability arising out relating to agreement shall be limited to the fees paid to the successful bidder for which decision of the Director, DSLR- Panaji in this regard shall be final and binding on the successful bidder. The successful bidder will be required to pay any such liquidated damages to DSLR- Panaji within 30 days of termination date.

5.3 Risk Purchase Clause

In case the successful bidder fails to execute the project as stipulated in the delivery schedule; Director, DSLR- Panaji reserves the right to procure the similar services from alternate sources at the risk, cost and responsibility of the successful bidder.

5.4 Indemnity

The successful bidder shall indemnify, protect and save DSLR-Panaji against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory infringements in respect of all components (like system software, software tools, hardware etc.) and the services rendered under this tender.
5.5 Intellectual Property Rights

All intellectual property rights for the work performed under this RFP as far as data is concerned shall lie with DSLR -Panaji. This clause is applicable to all data in any form or format procured, processed, scanned or produced under this RFP by the successful bidder. The successful bidder shall not use such data for any other purpose during and after the term of contract. In no cases, any document provided by the department is taken out of the space provided to the successful bidder for scanning.

5.6 Performance Obligations

While providing services as per Scope of Work, the successful bidder shall ensure that there is no infringement of any patent or design rights or violate any intellectual property or other right of any person or entity and shall comply with all applicable Laws, Statute, regulations and Governmental requirements and he/she shall be solely and fully responsible for consequence / any actions due to any such infringement.

5.7 Force Majeure

1. Force Majeure would include natural and unavoidable catastrophe that interrupts the expected course of events.
2. The bidder shall not be liable for penalty, liquidated damages or termination for default, if and to the extent that, his delay in performance or other failure to perform his obligations under the contract is the result of an event of Force Majeure.
3. For purposes of this clause, "Force Majeure" means an event beyond the control of the bidder and not involving the bidder and not involving the bidder’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, instances of, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes which would have an impact on monitoring committee and DSLR-Panaji.
4. If a Force Majeure situation arises, the bidder shall promptly notify monitoring committee and DSLR –Panaji in writing of such conditions and the cause thereof, the bidder shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
5. The Force Majeure circumstances and events shall include the following events to the extent that such events or their consequences (it being understood that if a causing event is within the reasonable control of the affected party, the direct consequences shall also be deemed to be within such party's reasonable control) satisfy the appropriate definition as per this agreement. Without limitation to the generality of the foregoing, Force Majeure Event shall include the following classes of events and circumstances and their effects:
a. Natural events ("Natural Events") to the extent they satisfy the foregoing requirements including:
   - Any material effect on the natural elements, including lightning, fire, earthquake, cyclone, flood, storm, tornado, or typhoon;
   - Explosion or chemical contamination (other than resulting from an act of war);
   - Epidemic such as plague;
   - Any event or circumstance of a nature analogous to any of the foregoing

b. Other Events (Political Events) to the extent that they satisfy the foregoing requirements including:
   - Act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion, act of terrorism or sabotage;
   - Strikes, work to rules, go-slow which are either widespread, nation-wide, or state-wide and are of political nature;
   - Any event or circumstance of a nature analogous to any of the foregoing

5.8 Arbitration and Resolution of disputes

Any dispute arising out of or in connection with the Contract shall in the first instance be dealt with mutual negotiations. Any dispute or difference whatsoever arising between the parties to the Contract out of or relating to the construction, meaning, scope, operation or effect of this Agreement or the validity of the breach thereof, which cannot be resolved through mutual negotiations, shall be referred to DSLR – Panaji by steering and monitoring committee where subject of dispute arises. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the Parties hereto, after reasonable attempts [which attempt shall continue for not less than 30(thirty) days], give 15 days notice thereof to the other party in writing.

In case the dispute or difference is still not resolved then it will be taken to sole arbitrator which shall be the committee comprising of
   - Principal Secretary/Secretary – Finance, Government of Goa
   - Principal Secretary/Secretary – Revenue, Government of Goa and
   - Principal Secretary/Secretary – Information Technology, Government of Goa

The provisions of the Arbitration and Conciliation Act, 1996 will be applicable and the award made there under shall be final and binding upon the parties hereto, subject to legal remedies available under the law. Such differences shall be deemed to be a submission to arbitration under the Indian Arbitration and Conciliation Act, 1996, or of any modifications, Rules or re-enactments thereof.
The Arbitration proceedings will be held at Panaji, Goa India. It will be the parties' and arbitrator/s endeavor to finalize proceedings within 60 days. The proceedings of arbitration shall be in English language. The Department may terminate this Contract, by giving a written notice of termination of minimum 30 days, to the Bidders if the Bidders fail to comply with any decision reached consequent upon arbitration proceedings.

5.9 Subject Laws and Jurisdiction

The Contract shall be governed by Indian Laws and the Courts in the State of Goa will have jurisdiction to entertain the dispute(s).

5.10 Exit Management

The Bidder shall provide to DSLR, Panaji, Government of Goa with a recommended exit management plan ("Exit Management Plan") which shall deal with at least the following aspects of exit management in relation to the Service Agreement as a whole and in relation to the Project Execution SLA.

- A detailed program of the transfer process that could be used in conjunction with a Replacement Bidders 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; and
- Plans for the communication with such of the Bidder’s staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on DSLR - Panaji, Government of Goa operations as a result of undertaking the transfer; and (if applicable) proposed arrangements for the segregation of the Bidder’s networks from the networks employed by Government of Goa, or the Replacement Bidders and identification of specific security tasks necessary at termination; and
- Plans for provision of contingent support to DSLR - Panaji and/or the Replacement Bidders for a reasonable period after transfer for the purposes of providing service for replacing the Services. Each Exit Management Plan shall be presented by the Bidders to DSLR and shall be approved by DSLR, Government of Goa and its nominated agencies.
- On exit of Agency all exit rights will be with DSLR-Panaji, Government of Goa.
6. Annexure A - Pre-Qualification bid document format

i) Pre-Qualification Bid Cover Letter

(Company letterhead)
[Date]
To

Respected Sir,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the RFP for “to meet such requirements and provide such services as required are set out in the RFP. We attach hereto our responses to pre-qualification requirements proposal as required in the RFP. We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to DSLR, true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of 180 days from the last date of submission of the tender. We hereby declare that in case the contract is awarded to us, we shall submit the performance bank guarantee in the form prescribed the RFP.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

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.

Dated this Day of 2018
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

(Signature)
(In the capacity of)
(Name)

Duly authorized to sign the Tender Response for and on behalf of:
(Name and Address of Company) Seal/Stamp of bidder

Witness Signature:
Witness Name:
Witness Address:
ii) Authority Letter

(Company letterhead)

[Date]

To

The Director,
Directorate Of Settlement & Land Records,
Panaji-Goa

<Bidder Representative's Name>, < Designation>, is hereby authorized to sign relevant documents on behalf of the Company in dealing with RFP of reference <RFP No. and Date>. He is also authorized to attend meetings and submit Technical and Commercial information as may be required by you in the course of processing above said RFP.

We hereby submit that the <Bidder Representative's Name>, < Designation> is the authorized signatory for the signing the response to this RFP (Pre-Qualification, Technical and Commercial Bid)and any other correspondence with regards to this RFP.

Thanking you,

Date:
Signature:
(Company Seal) (Name)
### iii) Particulars of the Bidder (All partners)

#### A. Organizational Details

<table>
<thead>
<tr>
<th>Details of the organization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>Nature of the legal status in India</td>
<td></td>
</tr>
<tr>
<td>Nature of business in India</td>
<td></td>
</tr>
<tr>
<td>Date of Incorporation</td>
<td></td>
</tr>
<tr>
<td>Date of Commencement of Business</td>
<td></td>
</tr>
<tr>
<td>Address of the Headquarters</td>
<td></td>
</tr>
<tr>
<td>Address of the Registered Office in India</td>
<td></td>
</tr>
<tr>
<td>Number of full time employees (Department wise)</td>
<td></td>
</tr>
<tr>
<td>Other Relevant Information</td>
<td></td>
</tr>
</tbody>
</table>

**Mandatory Supporting Documents:**

- a) Certificate of Incorporation from Registrar Of Companies (ROC)
- b) Relevant sections of Memorandum of Association of the company or filings to the stock exchanges to indicate the nature of business of the company
iv) **Financial Strength Details (All Partners)**

<table>
<thead>
<tr>
<th>Financial information</th>
<th>FY 2014-15</th>
<th>FY 2015-16</th>
<th>FY 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (in INR crores)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit Before Tax (in INR crores)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Relevant Information**

**Mandatory Supporting Documents:**

Auditor Certified financial statements for the last three financial years; 2014-15, 2015-16 and 2016-17

(Please include only the sections on P&L, revenue and the assets, not the entire balance sheet.)
v) Contact Details (All Partners)

<table>
<thead>
<tr>
<th>Details of the Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of contact person</td>
</tr>
<tr>
<td>Contact Person's phone number</td>
</tr>
<tr>
<td>Contact Person's email id</td>
</tr>
<tr>
<td>Website</td>
</tr>
<tr>
<td>Telephone Number</td>
</tr>
<tr>
<td>Fax Number</td>
</tr>
</tbody>
</table>
vi) Profiles of Previous Project Experience

<table>
<thead>
<tr>
<th>Relevant Project experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Client for which the project was executed</td>
</tr>
<tr>
<td>Name and contact details of the client</td>
</tr>
<tr>
<td>Project Details</td>
</tr>
<tr>
<td>Description of the project</td>
</tr>
<tr>
<td>Scope of services</td>
</tr>
<tr>
<td>Service levels being offered/ Quality of service (QOS)</td>
</tr>
<tr>
<td>Technologies used</td>
</tr>
<tr>
<td>Outcomes of the project</td>
</tr>
<tr>
<td>Other Details</td>
</tr>
<tr>
<td>Total cost of the project</td>
</tr>
<tr>
<td>Total cost of the services provided by the bidder</td>
</tr>
<tr>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Duration of the project (no. of months, start date, completion date, current status)</td>
</tr>
<tr>
<td>Other Relevant Information</td>
</tr>
<tr>
<td>Mandatory Supporting Documents:</td>
</tr>
<tr>
<td>a) Letter from the client to indicate the successful completion of the projects</td>
</tr>
<tr>
<td>b) Work order</td>
</tr>
<tr>
<td>Project Capability Demonstration</td>
</tr>
<tr>
<td>Please provide complete details regarding the scope of the project to indicate the relevance to the requested technical evaluation criterion.</td>
</tr>
</tbody>
</table>

Authorized Signatory (Name)
Name & Signature of Authorized Person
Company’s Seal
7. Annexure B - Self declaration form for not having pending cases in court of law
(On stamp paper of INR.100/-)

To,

Dear Sir,

I hereby declare that there are no pending cases against M/s______________________ (Name & Address of Bidder) with Government of Goa or any other court of law.

Signature of Bidder _____________________

Business Address _______________________

Place:

Date:
8. Annexure C - Notarized Affidavit for non-blacklisting

(On stamp paper of INR.100/-)

Undertaking

We M/s.___________________ (Name of the Bidder) having head office at ________________ Undertake the following:

1. We M/s___________________ (Name of the Bidder) are not blacklisted by the Central Government, State Governments or Government Corporations in India.

2. We further undertake that our dealer(s) M/s ______________________ (Name of dealers) having office at ________________ is/are also not blacklisted by the Central Government, State Governments or Government Corporations in India.

Signed on behalf of M/s ________________________ (Name of Bidder)

Place:

Date:

This Annexure details all the formats necessary for technical bid submission.

   i. Technical Bid Covering letter

(Company letterhead)
[Date]

To
The Director
DIRECTORATE OF SETTLEMENT & LAND RECORDS,
Panaji-Goa.

Ref: “REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA”

Dear Sir,

Having examined the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the RFP for “REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA” DSLR, Panaji - Goa to meet such requirements and provide such services as required are set out in the RFP. We attach hereto the technical response as required by the RFP, which constitutes our proposal. We undertake, if our proposal is accepted, to adhere to the implementation plan (Project schedule) for providing Professional Services in REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA, put forward in RFP or such adjusted plan as may subsequently be mutually agreed between us and DSLR, Panaji - Goa or its appointed representatives.

If our proposal is accepted, we will obtain a Performance Bank Guarantee issued by a nationalized /Scheduled Commercial bank in India, for a sum of equivalent to 10% of the contract value for the due performance of the contract.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of 180 days from the date of submission of the tender and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this tender response,
together with your written acceptance thereof in your notification of award, shall constitute a binding contract between us and DSLR, Panaji – Goa.
We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to DSLR, Panaji – Goa 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 DSLR, Panaji – Goa as to any material fact.
We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/services specified in the tender response.
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.

Date:
(Signature)
(Name)
(In the capacity of)
[Seal/Stamp of bidder]
Witness Signature:
Witness Name:
Witness Address:

CERTIFICATE AS TO AUTHORIZED SIGNATORIES
I__________________________, the Company Secretary/Chairman & Managing Director of__________________, certify that_____________________________ who signed the above Bid is authorized to do so and bind the company by authority of its board/governing body.
Date:
Signature:
(Company Seal) (Name)
ii. **Profile of Key People**

Please attach the profiles of the key people who would be involved during the course of this project. The profile shall necessarily include the following details in the format mentioned below:

<table>
<thead>
<tr>
<th></th>
<th>Name of the Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Current Designation in the Organisation</td>
</tr>
<tr>
<td>3.</td>
<td>Proposed Role in the Project</td>
</tr>
<tr>
<td>4.</td>
<td>Proposed Responsibilities in the Project</td>
</tr>
<tr>
<td>5.</td>
<td>Date of Birth</td>
</tr>
<tr>
<td>6.</td>
<td>Education</td>
</tr>
<tr>
<td>7.</td>
<td>Summary of Key Training and Certifications</td>
</tr>
</tbody>
</table>
### 8. Countries of Work Experience

<table>
<thead>
<tr>
<th>Role</th>
<th>Country 1</th>
<th>Country 2</th>
<th>Country 3</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

### 9. Language Proficiency

<table>
<thead>
<tr>
<th>Language</th>
<th>Reading</th>
<th>Writing</th>
<th>Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>French</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 10. Employment Record (For the total relevant experience)

<table>
<thead>
<tr>
<th>From / To</th>
<th>Employer</th>
<th>Position Held</th>
<th>From / To</th>
<th>Employer</th>
<th>Position Held</th>
<th>From / To</th>
<th>Employer</th>
<th>Position Held</th>
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</tr>
</tbody>
</table>

### 11. Total No. of Years of Work Experience

<table>
<thead>
<tr>
<th>Role</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

### 12. Total No. of Years of Experience for the Role proposed

<table>
<thead>
<tr>
<th>Role</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. Highlights of relevant assignments handled and significant accomplishments (Use following format for each project)

<table>
<thead>
<tr>
<th>Name of assignment or project:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Year:</td>
<td></td>
</tr>
<tr>
<td>Location:</td>
<td></td>
</tr>
<tr>
<td>Client:</td>
<td></td>
</tr>
<tr>
<td>Main project features:</td>
<td></td>
</tr>
<tr>
<td>Positions held:</td>
<td></td>
</tr>
<tr>
<td>Activities performed:</td>
<td></td>
</tr>
</tbody>
</table>

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

_______________________________________________________
Date:
[Signature of staff member or authorized representative of the staff]
Full name of authorized representative:

### iii. Proposed Resource Deployment

<table>
<thead>
<tr>
<th>#</th>
<th>Resource Level</th>
<th>Responsibility</th>
<th>Brief Description of Qualification-Certifications, Technical, Degree/Diploma</th>
<th>No. of Resources deployed at the proposed level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Page 75 of 98
Please provide details for each Core Project Team Member in following format:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Specify role to be played by him/her</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Current job title</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Total Experience in years. Relevant Experience to the Role</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Number of years with the organization</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Current job responsibilities</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Summary of Professional/ Domain Experience</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Skill Sets</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Highlights of Assignments handled and significant accomplishments</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Educational Background, Training and Certifications</td>
<td></td>
</tr>
</tbody>
</table>
iv. **Project Implementation Methodology**

1. The Bidder is required to submit the proposed technical solution in detail. Following should be captured in the explanation:

   a. Approach and Methodology to implement the entire project
   b. Strength of the Bidder to provide services including examples or case-studies of similar work (Survey/Re-survey land records) done for other clients
   c. Extent of compliance to bill of materials with their specifications mentioned in the scope of work
   d. Project Management Plan
   e. Project Monitoring and Communication Plan – Bidder’s approach to project monitoring and communications among stakeholders.
   f. Implementation plan – Bidder’s approach to implement the project
   g. Training Plan – Bidder’s approach to imparting training to department officials
   h. Risk Management Plan – Bidder’s approach to identify, respond / manage and mitigate risks
   j. Quality Control plan - Bidder’s approach to ensure quality of work and deliverables

**Note:**

   a. All the pages (documentary proofs and other documents that may be attached) should contain page numbers and would have to be uniquely serially numbered.
   b. Inadequate information will lead to disqualification of the bid.
10. **Annexure E - Draft Non - Disclosure Agreement**

(On stamp paper of INR 100/-)

This Non-Disclosure Agreement ("Non-Disc") is made and entered into _____ day of ______ month
__________ year (effective date) by and between ___________________ ("DSLR-Panaji-Goa")
and__________________ ("Company")

Whereas, DSLR-Panaji-Goa and Company have entered into a Contract ("Contract")
<Agreement Reference Number>effective <from Date>for < Period>; and Whereas, each party
desires to disclose to the other party certain information in oral or written form which is
proprietary and confidential to the disclosing party, ("CONFIDENTIAL INFORMATION").NOW,
THEREFORE, in consideration of the foregoing and the covenants and agreements contained
herein, 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 either Party to the other in connection with 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 knowhow, 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 disclosing
party's data, computer database, products and/or services. Results of any tests, sample
surveys, analytics, data mining exercises or usages etc. carried out by the receiving party in
connection with the Department’s Information including citizen/users/persons/customers
personal or sensitive personal information as defined under any law for the time being in force
shall also be considered Confidential Information.

(b) The term, "DSLR, GOA" shall include the officers, employees, agents, consultants,
contractors and representatives of DSLR, GOA

(c) The term, "Company" shall include the directors, officers, employees, agents, consultants,
contractors and representatives of Company, including its applicable affiliates and subsidiary
companies.
2. Protection of Confidential Information

With respect to any Confidential Information disclosed to it or to which it has access, Company affirms that it shall:
(a) Use the Confidential Information as necessary only in connection with Project 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 take less care with the Confidential Information that the parties take to protect the confidentiality of its own proprietary and confidential information and that of its clients;
(c) Not to make or retain copy of any commercial or marketing plans citizen/users/persons/customers database, Proposals developed by or originating from DSLR-Panaji or any of the prospective clients of DSLR-Panaji except as necessary, under prior written intimation from DSLR-Panaji, in connection with the Project, and ensure that any such copy is immediately returned to DSLR-Panaji to do so;
(d) Not disclose or in any way assist or permit the disclosure of any Confidential Information to any other person or entity without the express written consent of the other party; and
(e) Return to the other party, or destroy, at DSLR-Panaji’s discretion, 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 either party's engagement in the Project, or (ii) the request of the other party therefore.
(f) Not to discuss with any member of public, media, DSLR-Panaji, any or any other person about the nature of arrangement entered between DSLR-Panaji and Company and the nature of services to be provided by the Company to the DSLR-Panaji.

3. Onus.
Company shall have the burden of proving that any disclosure or use inconsistent with the terms and conditions hereof falls within any of the foregoing exception

4. Exceptions.
These restrictions as enumerated in section 1 of this Agreement shall not apply to any Confidential Information:
(a) Which is independently developed by Company or lawfully received from another source free of restriction and without breach of this Agreement; or
(b) After it has become generally available to the public without breach of this Agreement by Company; or

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(c) Which at the time of disclosure to Company was known to such party free of restriction and evidenced by documentation in such party's possession; or
(d) Which DSLR, GOA agrees in writing is free of such restrictions.
(e) Which is received from a third party not subject to the obligation of confidentiality with respect to such Information.

5. Remedies. Company acknowledges that (a) any actual or threatened disclosure or use of the Confidential Information by Company would be a breach of this agreement and may cause immediate and irreparable harm to DSLR, GOA or DSLR, PANAJI - GOA
(b) Company affirms that damages from such disclosure or use by it may be impossible to measure accurately; and
(c) injury sustained by DSLR, GOA or DSLR, PANAJI-GOA may be impossible to calculate and remedy fully. Therefore, Company acknowledges that in the event of such a breach, DSLR-Panaji shall be entitled to specific performance by Company of Company's obligations contained in this Agreement. In addition, Company shall indemnify DSLR, GOA and DSLR, PANAJI – GOA of the actual and liquidated damages which may be demanded by DSLR, GOA or DSLR. Moreover, DSLR, GOA shall be entitled to recover all costs (including reasonable attorney's fees) which it or they may incur in connection with defending its interests and enforcement of legal rights arising due to a breach of this agreement by Company.

6. Need to Know. Company shall restrict disclosure of such Confidential Information to its employees and/or consultants with a need to know (and advise such employees of the obligations assumed herein), shall use the Confidential Information only for the purposes set forth in the Agreement, and shall not disclose such Confidential Information to any affiliates, subsidiaries, associates and/or third party without prior written approval of the disclosing party.

7. Intellectual Property Rights Protection. No license to a party, 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 such party.

8. No Conflict. The parties represent and warrant that the performance of its 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. Dispute Resolution. If any difference or dispute arises between the DSLR, GOA and the Company in connection with the validity, interpretation, implementation or alleged breach of any provision of this Agreement; any such dispute shall be referred to the DSLR-Panaji (a) The arbitration proceedings shall be conducted in accordance with the (Indian) Arbitration & Conciliation Act, 1996 & amendments thereof. (b) The place of arbitration shall be PANAJI. (c) The arbitrator's award shall be substantiated in writing and binding on the parties. (d) The proceedings of arbitration shall be conducted in English language. (e) The arbitration proceedings shall be completed within a period of 180 days from the date of reference of the dispute to arbitration.

11. 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 the exclusive jurisdiction of Courts and/or Forums situated at Mumbai, India only.

12. 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.

13. 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.

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

15. 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.

16. 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.

17. Survival. Both parties agree that all of their obligations undertaken herein with respect to Confidential Information received pursuant to this Agreement shall survive until perpetuity even after any expiration or termination of this Agreement.

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

19. Term. Subject to aforesaid section 17, this Agreement shall remain valid up to 10 years from the "effective date".

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 Company

WITNESSES:

1.

2.
11. **Annexure F - Performance Bank Guarantee Format**

(On stamp paper of INR 100/-)

Bank Guarantee No.____________________

Date: __________________________

To,

<<Name of

<<Name of

<<Address

Dear Sir,

Whereas <<Name of the System Integrator Agency>>having its corporate office at <<Address of the System Integrator Agency>> (hereinafter called "System Integrator Agency"), has undertaken, in pursuance of Contract dated <<Date>>(hereinafter referred to as the Contract) for project - "REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA, PANAJI - GOA".

AND WHEREAS it has been stipulated in the said Contract that the System Integrator Agency shall furnish a Bank Guarantee ("the Guarantee") from a nationalized / Scheduled Commercial bank for the sum of <<Amount>> as security for project - "REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA".

WHEREAS <<Name of Bank and Name of Branch>> (hereinafter referred to as the "Bank" which expression shall unless repugnant to the context or contrary to the meaning thereof, include its successors and assigns) have agreed to give the <<Name of the Purchaser >> (hereinafter called "Purchaser") the Guarantee.

THEREFORE the Bank hereby agrees and affirms as follows:

1. The Bank hereby irrevocably and unconditionally guarantees the payment of all sums due and payable by the System Integrator Agency to DSLR, GOA under the terms of the said Contract. Provided however that the maximum liability of the Bank towards DSLR, GOA under this Guarantee shall not, under any circumstances, exceed <<Amount>> in aggregate.

2. In pursuance of this Guarantee, the Bank shall, immediately upon the receipt of a written notice received by us during normal banking hours, on or before <<Date>> from DSLR, GOA in that behalf and without delay, demur or setoff, pay to DSLR, GOA any and all sums demanded under this guarantee by DSLR, GOA under the said demand notice, subject to the maximum limits specified in Clause 1 above. A notice from DSLR, GOA to the Bank shall be sent by registered post (acknowledgement due) at the following address, which should be received by the Bank, on or before <<Date>>.
Name of Bank ________________
Name of Branch ________________
Address of Branch ________________

3. This Guarantee shall come into effect immediately upon execution and shall remain in force up to <<Date>>. The Bank may at its sole discretion extend the Guarantee for a further period which may be mutually decided by the System Integrator Agency and DSLR, GOA, provided we are in receipt of a written notice received by us during normal banking hours, on or before <<Date>>. The liability of the Bank under the terms of this Guarantee shall not, in any manner whatsoever, be modified, discharged or otherwise affected by:

- Any change or amendment to the terms and conditions of the contract or the execution of any further contracts.
- Any breach or non-compliance by the System Integrator Agency with any of the terms and condition of any Contract/credit arrangement, present or future between the System Integrator Agency and the Bank, provided that nothing herein above will enlarge or extend the liability of the Bank under this Guarantee.

4. The Bank shall not be released of its obligations under these presents by reason of any act of omission or commission on the part of DSLR, GOA or any other indulgence shown by DSLR, GOA or any other matter whatsoever which under the law, but for this provision, have the effect of relieving the bank provided that nothing herein above will enlarge or extend the liability of the Bank under this guarantee. Any part payment made by the Bank under this Guarantee shall proportionately reduce the amount outstanding under this guarantee.

5. This Guarantee will be subject to Indian law and jurisdiction of courts in Goa.

6. Notwithstanding anything contained above:
   i) Our liability under this bank guarantee shall not exceed <<Amount>>.<Amount in words>>.
   ii) This bank guarantee shall be valid up to <<Date>>.
   iii) We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if we receive a written claim or demand on or before <<Date>>. And if no such claim is received by us by the date mentioned as aforesaid, then all rights of the DSLR, GOA under this guarantee shall cease.

7. The beneficiary should seek confirmation of issuance of this guarantee from the controlling office of the issuing branch which is Name of Branch

8. We Name of Bank lastly undertake no to revoke this guarantee during its currency except with the previous consent of the Government in writing.

Dated the __________ day of ______________ 2018
For Name of Bank
12. Annexure G- Commercial Bid Format

Commercial Proposal Cover Letter

Company letterhead)

[Date]

To,

Ref: Request for Proposal – “REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA IN DSLR, PANAJI - GOA”

Dear Sir,

Having examined the RFP Document, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the services, as required and outlined in the RFP. In order to meet such requirements and to provide services as set out in the RFP document, following is our quotations summarizing our Commercial Proposal.

We attach hereto the Commercial Proposal as required by the Bid document, which constitutes our proposal.

We undertake, if our proposal is accepted, to the services as put forward in the RFP or such modified requirements by DSLR, GOA or its appointed representatives, will be binding on us. If our proposal is accepted, we will obtain a Performance Bank Guarantee issued by a nationalized / Scheduled Commercial bank in India, for the due performance of the contract.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of 180 days from the date of submission of the tender and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this tender response, together with your written acceptance thereof in your notification of award, shall constitute a binding contract between us and DSLR, Panaji - Goa.

We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to DSLR,
Panaji - Goa 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 DSLR, Panaji - Goa as to any material fact.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/services specified in the tender response.

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.

Date:
(Signature)
(Name)
(In the capacity of)
[Seal/Stamp of bidder]
Witness Signature:
Witness Name:
Witness Address:
------------------------------------------------------------------------------------------------------------
CERTIFICATE AS TO AUTHORIZED SIGNATORIES
I________________________, the Company Secretary/Chairman & Managing Director of
________________________, certify that________________________ who signed the above Bid is authorized to do so and bind the company by authority of its board/governing body.
Date:
Signature:
(Company Seal)
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

("REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA")

A single quote is being asked in the commercial bid. The rate in the commercial bid would have to be filled in the following format.

<table>
<thead>
<tr>
<th>Name, Address, Contact Details of Bidder</th>
<th>Description</th>
<th>Quantity</th>
<th>AMOUNT IN FIGURES (Per Unit)</th>
<th>GST</th>
<th>TOTAL AMOUNT</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sr. No.</td>
<td>Description</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Computer Hardware &amp; Operating System Softwares</td>
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<td></td>
<td>Servers</td>
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<td>Printer / Plotters</td>
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</tr>
<tr>
<td></td>
<td>GPS Device</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Misc if Any (required Desktop Computers, switches,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cables, UPS etc for installation)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Lump Sum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>GIS &amp; RDBMS Softwares</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>GIS Desktop Software</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GIS Server Software</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RDBMS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Misc if Any (Lump Sum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Establishment Primary / Secondary / Tertiary Control Points (DGPS)</td>
<td>As per RFP (Lump Sum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>DGPS Primary Base Stations and Collection of GCPs</td>
<td>4X14000 Approx.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Geo-Referencing of Survey Sheets</td>
<td>Approx. 14000 Sheets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Development of GIS Based Land Record Information System and Citizen Portal</td>
<td>Lump Sum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>System Maintenance including Software / Hardware / Application</td>
<td>Per year</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

GRAND TOTAL
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

- The rate mentioned in the above table (A) will be considered as a Final for the purpose of the Commercial bid evaluation of the bidder.
- In case of any errors/corrections/typographic errors/computations, the rate mentioned in the above table shall be considered as a final commercial submission from the bidder for calculation purposes.
- The rate mentioned by the bidder will remain constant/unchanged throughout the project duration.
- The above price should be inclusive of applicable taxes, duties, fees, levies, and other charges as may be applicable.
13. **Annexure H- Format for Pre-Bid Queries**

All enquiries from the bidders relating to this RFP must be submitted in email [dir-land.goa@nic.in](mailto:dir-land.goa@nic.in) in the following format:

[To be prepared on the letter head of the Lead Bidder]

Name of Bidder:
Name and position of person submitting request:
Full formal address of the organization including phone, fax and email id:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>RFP Reference(s) (section number/page)</th>
<th>Content of RFP requiring Clarification</th>
<th>Points of clarification required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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<td></td>
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<tr>
<td>5.</td>
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</tbody>
</table>
14. **Annexure I - Format for Presentation**

**Implementation Approach**
Bidders are required to specify a suggested implementation methodology/approach in executing the project as the proposed solution. Including but not necessarily limited to approach paper, concept demo, timelines, phases, milestones, testing and training. In the technical evaluation process, the bidders will be called to give presentation, wherein the Bidder will be given approximately 30 minutes to explain their approach, methodology for implementation and give the Concept Demo.

The team members proposed as a part of the project shall be present at the time of presentation and may be interviewed during presentation.
### Annexure J - Hardware Specifications

#### SERVERS

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Processor Xeon E5-2687Wv4 24 core (2 chip) 3000 MHz</td>
</tr>
<tr>
<td>2</td>
<td>Memory Server to be populated with 128 GB RDIMM, 2400MT/s, Dual Rank, x8 Data Width</td>
</tr>
<tr>
<td>3</td>
<td>DIMM Slots Server should support minimum 24 DIMM slots</td>
</tr>
<tr>
<td>4</td>
<td>Memory Property Advanced ECC memory protection, Memory mirroring or Equivalent</td>
</tr>
<tr>
<td>5</td>
<td>Drives Up to 16 x 2.5” HDD: SAS, SATA, nearline SAS SSD: SAS, SATA</td>
</tr>
<tr>
<td></td>
<td>Up to 8 x 3.5” HDD: SAS, SATA, nearline SAS SSD: SAS, SATA</td>
</tr>
<tr>
<td>6</td>
<td>Drive capacity 4 x 1.2TB 10K RPM SAS 12Gbps 2.5in Hot-plug Hard Drive</td>
</tr>
<tr>
<td>7</td>
<td>RAID Controller Integrated hardware RAID controller and should support Raid 0, 1, 5 and have 512MB BBWC or Flash Cache</td>
</tr>
<tr>
<td>8</td>
<td>Optical Drive DVD-ROM</td>
</tr>
<tr>
<td>9</td>
<td>Graphics Controller Minimum 8 MB Memory</td>
</tr>
<tr>
<td>10</td>
<td>Ethernet Ports 4 x 1GbE, 2 x 10+2GbE, 4 x 10GbE NDC</td>
</tr>
<tr>
<td>11</td>
<td>PCI Slots Up to 7 x PCIe 3.0 plus</td>
</tr>
<tr>
<td>12</td>
<td>Remote Management Vendor should provide embedded features that helps to manage Servers in physical, local and remote environments, operating in-band or out-of-band, with or without a systems management software agent.</td>
</tr>
<tr>
<td></td>
<td>• Should include Power Management, necessary licenses should be included.</td>
</tr>
<tr>
<td></td>
<td>• Power Management should give historical data for atleast 72 hours.</td>
</tr>
<tr>
<td></td>
<td>• Should also support IPv6</td>
</tr>
<tr>
<td></td>
<td>• Should support remote scripted reconfiguration tools.</td>
</tr>
<tr>
<td></td>
<td>• Should be able to monitor all systems components (BIOS, HBA’s, NICs, CNA’s).</td>
</tr>
</tbody>
</table>
| 13. | Redundant Power Supply | • Redundant hot swap power supplies.  
• Should be at least 92%+ efficient at 100% workload. |
| 14. | GPU capability | The server should be able to support GPU card in future. |
| 15. | Redundant Cooling Fans | Should have hot-swap redundant cooling fans. Fans should automatic adjust speeds depending on the temperature inside the server chassis |
| 16. | Failure Alerting Mechanism | The server should be able to alert impending failures on maximum number of components. The components covered under alerting mechanism should at least include Processors, memory, PCIe slots, VRMs, power supplies, fans, hard disk drives |
| 17. | Cluster Support | Should support High Availability Clustering |
| 18. | Form Factor | 2U |
| 20. | Server Management | • Smart Embedded Systems Management should be able to automate task like discovery deploy monitor and update.  
• Should not be dependent on agents to for life cycle management.  
• Should be OS Agnostic.  
• Should be able to provide Single console to manage Servers.  
• Power management tool – Single interface to optimize ad control every usage for servers and Racks.  
• Should be able to integrate to 3rd party management tools. |
| 21. | Warranty | 5 years Comprehensive With Mission Critical Support |
| 22. | Operating system | Windows Server 2012 R2 64 BIT AND DATA CENTER |
| 23. | OEM Market Share | OEM should be in leaders quadrant in latest Gartner Magic Quadrant in X86 Server platform |
| 24. | OEM qualification | OEM should have presence in server business in India for last 5 years |
| 25. | OEM experience | OEM should have executed similar orders in India Central Government / State Government/ PSU's in last 5 years |
|   | Rails | Must be supplied with cable mgmt arms and rails to rack mount the server |

**Note**  The vendor has to give part nos. of every component which will be cross verified with OEM.

Rails must be supplied with cable mgmt arms and rails to rack mount the server
WORKSTATION

<table>
<thead>
<tr>
<th>SI #</th>
<th>Functionality</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Processor</td>
<td>7th Gen Intel Core i7-7700K (Quad Core 4.2GHz, 4.5Ghz Turbo, 8MB, w/ HD Graphics 630)</td>
</tr>
<tr>
<td>2.</td>
<td>RAM</td>
<td>32GB (4X8GB) 2400MHz DDR4 UDIMM Non-ECC</td>
</tr>
<tr>
<td>3.</td>
<td>HDD</td>
<td>1TB 3.5inch SATA (7,200 Rpm) Hard Drive</td>
</tr>
<tr>
<td>4.</td>
<td>Operating System</td>
<td>Windows 10 Pro (64bit) English</td>
</tr>
<tr>
<td>5.</td>
<td>Graphics</td>
<td>NVIDIA Quadro K1200 4GB, Full Height (4 mDP) (4 mDP to DP adapters)</td>
</tr>
<tr>
<td>6.</td>
<td>Monitor</td>
<td>23” or Above TFT</td>
</tr>
</tbody>
</table>
| 7.   | Others        | Integrated Intel SATA Controller  
                        Intel Ready Mode Technology  
                        16X DVD +/- RW  
                        Optical Mouse MS116 Black  
                        Multimedia Keyboard KB216 Black |
| 8.   | Warranty      | 3 Year Warranty |

SAN STORAGE

<table>
<thead>
<tr>
<th>SI #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Unified storage system shall support Both Block and File Protocols. It must have dual redundant controllers in active-active mode with automatic fail over to each other in case of failure. Each controller shall be configured with minimum 6 Core CPU. File services should not require any extra hardware or software and must be built in the controller processor.</td>
</tr>
<tr>
<td>2.</td>
<td>Base configuration of controller and drives with no expansion shelves must fit in 2U rack space.</td>
</tr>
<tr>
<td>3.</td>
<td>The Array should be supplied 20TB usable using 1.2TB SAS drives in RAID5 with hot spare disks.</td>
</tr>
<tr>
<td>4.</td>
<td>Storage array shall be configured in No-Single-Point-of-Failure configuration with redundant components and offer Five 9’s of availability.</td>
</tr>
<tr>
<td>5.</td>
<td>The Storage array shall have end to end 12 Gbps SAS architecture for Backend and Disk connectivity.</td>
</tr>
<tr>
<td>6.</td>
<td>The array should support block protocols like FC, iSCSI and File protocols like CIFS, NFS and SMB.</td>
</tr>
<tr>
<td>7.</td>
<td>The storage array must support scalability of up to minimum 148 drives in the same</td>
</tr>
</tbody>
</table>
chassis and with Data in place upgrade up to 800+ drives of SSD/SAS/NL-SAS combinations.

8. Array should be supplied with at least 48 GB Cache which should be flexibly usable for Read and write operations, the Controller cache should be scalable up to 256GB with controller upgrades. All writes must me mirrored across controllers. Array should have capability to extend the system cache by adding high performance solid state disks. The array should be capable of scaling system cache to 2TB using SSD disks. This cache should be able to accelerate both read and write IOs.

9. The array should be supplied with 4 x 4 lane 12Gb/s SAS ports across storage controllers for back-end connectivity.

10. The array must support enterprise class dual-ported SAS disks built for 24 x 7 operation.

11. The array should be supplied 8 X 16G FC ports and 8 X 10G Ethernet Ports across controllers, Ethernet ports shall support both Block (iSCSI) and File (NFS, CIFS) protocols simultaneously. Array must be capable of upgrading more FC, iSCSI, Eth ports online in future.

12. The Storage should have the capability to provide Quality of Service (QoS) for the LUNs/volumes configured in the system to ascertain desired performance level for applications.

13. The Storage array must provide end-to-end data protection using industry standard mechanism such as parity checking, checksum and background disk scrubbing etc.

14. The Storage array must provide multiple levels of access control including role-based security and auditing capability.

15. The storage array should support connectivity to current version of OS Platforms like Linux, Windows, Virtualization etc.

16. In the event of unplanned power failure, data in the cache should be safely destaged to the disks to protect data from loss.

17. The storage system should support non-disruptive field replacement capabilities for components like Disk Drives, Disk connections, power supplies, controllers etc.

18. The Storage array must support capability to replicate data to remote site array in synchronous and asynchronous modes. This license should be configured for entire supported capacity of the array. Replication Solution shall support unified replication of File and Block data within a single Consistency Group. License should be provided for entire capacity.

19. Entire storage capacity should be protected with Data-at-rest encryption, requested software and hardware should be configured.

20. The Storage array should be upgraded to higher model with Data-in-place protection in the offered array family to meet future data growth and lower TCO.
21. Storage should support mixing of RAID types (RAID 10, RAID 5, RAID6) within a storage pool.

22. The storage should be configured with easy to manage, simple integrated user interface for distributed storage environments. A single sign-on centralized console should have dashboards for at-a-glance management and reporting and other functions like configuration monitor and manage. Performance monitoring should be provided to analyze the performance data.

23. Storage shall be configured with required feature license to snapshot and restore file and block data. The. This license should be configured for entire supported capacity of the array.

24. Storage must support 64 bit file system and allow creating large single file system of at least 64TB in size.

**PLOTTER**

<table>
<thead>
<tr>
<th>SI #</th>
<th>Line drawings:</th>
<th>21 sec/page on A1/D, 120 A1/D prints per hour on Draft mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Print resolution</td>
<td>Up to 2400 x 1200 optimised dpi Margins (top x bottom x left x right)&quot; &quot;Roll: 5 x 5 x 5 x 5 mm (0.2 x 0.2 x 0.2 x 0.2 in) (borderless on photo roll media)</td>
</tr>
</tbody>
</table>
|      | Sheet: | 5 x 22 x 5 x 5 mm (0.2 x 0.87 x 0.2 x 0.2 in)"
|      | Ink types | Dye-based (C, G, M, pK, Y); pigment-based (mK)
|      | Print heads | 1 (C, G, M, mK, pK, Y)
|      | Minimum line width | 0.02 mm (0.0008 in) (HP-GL/2 addressable)
|      | Handling | "Input: two automatic front-loading roll feeds, smart roll switching, sheet feed; Output: integrated output stacking tray (from A4/A to AO/E, with up to 50 A1/D-size capacity), media bin, automatic cutter
|      | Scanner: | straight-through scan paper path for sheet and cardboard originals"
|      | Size | "Rolls: 279 to 914 mm (11 to 36 in)"
|      | Sheets: | 210 x 279 to 914 x 1219 mm (8.3 x 11 to 36 x 48 in)"
|      | Standard sheets: | A4, A3, A2, A1, A0 (A, B, C, D, E)"
|      | Scan speed | "Colour: up to 3.81 cm/sec (1.5 in/sec)"
|      | Grayscale: | up to 11.43 cm/sec (4.5 in/sec)"
REQUEST FOR PROPOSAL FOR SELECTION OF AGENCY FOR IMPLEMENTATION OF GIS PLATFORM FOR LAND RECORDS PREPARATION, MANAGEMENT & DISSEMINATION IN THE STATE OF GOA

<table>
<thead>
<tr>
<th>Scan/copy resolution</th>
<th>Up to 600 dpi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum copies</td>
<td>Up to 99 copies</td>
</tr>
<tr>
<td>Memory</td>
<td>128 GB, 320 GB hard disk</td>
</tr>
<tr>
<td>Connectivity</td>
<td>Interfaces (standard) Gigabit Ethernet (1000 Base-T)</td>
</tr>
<tr>
<td>Warranty</td>
<td>5 Years Comprehensive onsite warranty (Covering all parts except tonners)</td>
</tr>
</tbody>
</table>

Delivery
All the necessary tools & tackles licenses, cables / connectors for Ethernet / Fibre / USB / Power etc. required for making the system operational shall be provided by the bidder.

Note
The vendor has to give part nos. of every component which will be cross verified with OEM.

Rails
Must be supplied with cable mgmt. arms and rails to rack mount the server

GPS DEVICE
GPS Specification

System
- Operating System: Android 5.1
- CPU: Quad-Core 1GHz
- RAM: 2GB/3GB (optional)
- Flash Memory: 32GB
- Memory Extend: Micro SD, up to 128G

GNSS
- GPS+GLONASS or GPS+BDS supported
- Accuracy: Stand alone: 2m - 5m

SBAS: 2m
- Cold Start: 30s
- Hot start: 1s
- Channel: 72

Display
- Size: 8inch Corning Gorilla Glass touch screen
- Resolution: 1280*800
- Bright: 450cd/m2
- Touch screen: Capacitance touch, 5 points touch screen
- Point touch pen: Mapping pen with high degree of accuracy
Camera
- Front: 2.0 megapixel camera
- Back: 8.0/13.0 megapixel camera with auto focusing and

Fill flash (optional)
- Flash light: Support

Physical
- Dust proof and waterproof: IP65
- Shock: Survives a 1.5 meter drop onto concrete
- Humidity: 5%RH - 95%RH (without condensation)
- Dimension: 235mm * 138mm * 30mm (L * W * H)
- Weight: 660g (with battery)
- Operating temperature: -20 °C to +60 °C
- Storage temperature: -30 °C to +70 °C

Communications
- WiFi: 802.11 b/g/n
- Cellular Modem: TDLTE, TDSCDMA, EDGE, GSM, WCDMA, Dual SIM and Dual Standby
- Bluetooth: V4.1
- USB: Micro USB, OTG (Support hot plug)
- Bar code: 1D/2D bar code scanner (optional)

Electrical
- Li ion battery: 9000mAh
- Voltage: 3.8V
- Battery life: >12h (Continuous work)
- Charging time: <4h

Physical Properties
- Bar code: 1D/2D scanning mode (optional)
- NFC: Optional
- Fingerprint: Optional
- G sensor: Support
- Light sensor: Support
- Distance sensor: Support
- E-compass: Support
- Gyroscope: Support