



# **Request for Expression of Interest Selection of Consultants towards**

**Consultancy services for setting Up Of Digital Control Centre ( WAR ROOM )  
at IWAI Noida Office for Real Time Monitoring of project under Jal Marg Vikas  
Project for Capacity Augmentation of National Waterway-1 (JMVP).**

**File Reference : IWAI/WB/NW-1/4/10/2018**

**Activity Ref : IN-IWAI-55634-CS-QCBS**

**Date of Release - June, 2018**

**Project Management Unit  
Capacity Augmentation of the National Waterway – 1 Project (Jal Marg Vikas)**

**INLAND WATERWAYS AUTHORITY OF INDIA**

**(Ministry of Shipping, Government of India)**

**Head Office : A-13, Sector – 1, Noida - 201301**

**Phone : 0120-2544004, 2424544 ; website: [www.iwai.nic.in](http://www.iwai.nic.in) ; email : [vc.iwai@nic.in](mailto:vc.iwai@nic.in)**

Project Management Unit  
Capacity Augmentation of the National Waterway – 1 Project (Jal Marg Vikas)  
**INLAND WATERWAYS AUTHORITY OF INDIA**  
(Ministry of Shipping, Government of India)  
Head Office: A-13, Sector – 1, Noida - 201301

Phone: 0120-2544004, 0120-2424544 ; website: www.iwai.nic.in ; email: vc.iwai@nic.in

### Expression of Interest

1. Inland Waterways Authority of India (IWAI), Ministry of Shipping, Government of India has applied for financing from the World Bank towards the cost of the Project “**Capacity Augmentation of the National Waterway – 1 (Jal Marg Vikas Project)**”, and intends to apply part of the proceeds for consulting services.
2. The consulting services (“the Services”) include **Consultancy Services for Setting up of Digital Control Center ( WAR ROOM ) at IWAI Noida Office for Real Time Monitoring of Project Under JMVP..**  
IWAI plans to engage consultant to help in developing and Setting up of a digital monitoring control center at Noida for its construction site activities and has identified the need to seek assistance of and collaborate with a Consultant to guide IWAI through the processes of identifying their digital monitoring needs, identifying possible technologies and developing use cases, evaluating and recommending best fit partners, and subsequent project management of the implementation and roll out of the selected solutions. The selected Consultant must be independent and will not be able to bid for any downstream products, packages and services involved in achieving IWAI’s business goals for this digital monitoring initiative.

The duration of the service would be 10 ( Ten) weeks from date of award of contract.

The objective of this project is to be able to capture real-time data on construction site activity and provide status reports on project works, enable good governance and accountability, and establish a centralized command center to monitor onsite activities.

Accordingly IWAI is pursuing a three phase approach towards assessment and implementation plan with all the infrastructure requirements and specifications and Implementation cum Hand holding.

Phase-I will include the study of the requirements feasibility, the assessment need for development of IT infrastructure, VOIP and other restrictions. Functional Fitment Assessment, Architectural Design & Detailed Road Map

Phase-II shall be taken up after completion of Phase-I, the Technical Specification of the equipment shall be developed & Procurement for Hardware, Software & allied service and system, Floating of RFP and Tendering.

Phase-III Installation, Testing and commissioning of the equipment in phased manner. Development of report and dashboard for project evaluation, program Management and monitoring project activities, IT securities and STQC , Facilitation of User Acceptance Testing, User training and Post Go-Live assistance.

3. This section provides indicative details of the major activities and tasks envisaged to be undertaken by the Consultant. These and any other necessary activities and tasks needed to achieve the outlined business objectives must be included in the Consultant's response proposal against this EOI (Expression of Interest)

**Analyze business requirements including the integration of VOIP ( Voice Over Internet Protocol ) and define solution architecture**

- Understand broad level requirement of IWAI for digital monitoring
- Identify technologies that IWAI can implement
- Conduct site visits to understand the current processes, identify current infrastructure available and identify challenges for implementing technologies planned to be proposed
- Study current infrastructure available at IWAI headquarters including VOIP infrastructure at HQ, Regional Offices & Construction sites.
- Develop a high level understanding of the bottlenecks faced by IWAI
- Conduct gap assessment with future architecture
- Define future state architecture by defining baseline, target, and optimal architecture
- Map out pros and cons of each technology, including cost estimates and rough implementation timelines, and discuss with IWAI senior management
- Present roadmap showing list of initiatives to be undertaken
- Understand existing governance processes and discuss requirements with IWAI senior management
- Prepare report designs/prototypes and dashboard layouts
- Define to-be operating model for IWAI
- Create Business/Functional Architecture detailing processes and interaction between them
- Create a technology blueprint in terms of information, services, application, security and infrastructure views to support the architecture
- Prepare business case for management sign off for options agreed by stakeholders

**Establish a Project Charter**

- Establish the project's guiding principles and processes
- Illustrate how the project deliverable will meet general business requirements
- Establish clear success criteria based on expected benefits
- Examine assumptions
- Weigh risks and prepare risk mitigation plans
- Communicate control mechanisms to stakeholders

**Proposal Process management**

- Initiate Pre-bid connects with vendors
- Develop evaluation framework in consultation with IWAI senior management
- Communicate key information, submission guidelines and timelines to bidders
- Assist IWAI in preparing and publishing RFP
- Evaluate vendor responses
- Develop Total Cost of Ownership (TCO) for each vendor response
- Provide recommendations on best fit products and vendors

**Program and Project Management**

Setting up Program office

- Working with governance team including providing fortnightly reports to Project Steering Committee on progress
- Endorsing any major decisions to be made such as sign off deliverables for key project milestones
- Prepare organizational change management program and co-ordinate execution of related communication management activities
- Post Implementation Audit on the feasibility and effectiveness of the applications deployed

Undertake project monitoring and control activities, including weekly / fortnightly project reviews

Ongoing program monitoring to cover the following aspects of program management

- Issues Management
- Testing & Quality Assurance Plan
- Risk Management
- Resource Management
- Scope Management
- Requirements change management
- Time and Cost Monitoring
- Training and handholding need requirements & evaluate training effectiveness

Please note that the program management tasks are inclusive of but not limited to the list above.

4. The Vice Chairman & Project Director, Project Management Unit, JMVP IWAI, invites eligible consulting firms (“Consultants”) to submit their interest to provide **Consultancy Services for Setting up of Digital Control Center ( WAR ROOM ) at IWAI Noida Office for Real Time Monitoring of Project Under JMVP.”** Consultants interested in providing the Service should provide information demonstrating that they have the required qualifications and relevant experience to perform the required Services. Consultants may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications.

The short listing **Selection /Eligibility parameters for EOI shall be as following:**

- 4.1 Consultant should be engaged in conducting similar activities in last 10 years – copy of Certificate of Incorporation to be submitted along with the EOI.
- 4.2 Consultant must have a minimum financial turnover of INR 5 crores in the last three financial years – CA certified declaration for last 3 years to be submitted along with the EOI.
- 4.3 Consultant must have completed at least 5 studies of similar / related work during last 10 years  
This shall be substantiated by submitting client certificate indicating the Scope of work, Date of commencement, Date of completion, Brief synopsis of the assignment under taken, Client’s details to be submitted.  
. Similar/related works shall include: *Digital surveillance projects related to image based surveillance of large areas and analysis of the data captured (using geospatial data analysis and machine learning) and shall include work related to project management*

- 4.4 Consultant must have a minimum of 50 employees on its payroll – Declaration to be submitted
- 4.5 Copy of Power of Attorney of the signatory/ies signing the Eol and/or associating to submit the Eol - to be submitted.
- 4.6 Consultants submitting proposals as association, must clarify the nature of association, whether JV or sub-consultancy.
- 4.7 In case of Eol submission as Joint Venture, copy of JV Agreement to be submitted.
5. Expressions of interest must be submitted either on CPPP Portal of GoI by date & time stated here under .  
Or  
Expressions of interest must be delivered in a written form to the address below (in person, or by post or by e-mail)

**Date of Submission of Proposal :- 22.06.2018 by 15:00 hours (IST)**

**Envelope marked with :-**

**“Expression of interest for Consultancy services for **Consultancy Services for Setting up of Digital Control Center ( War Room) at IWAI Noida Office for Real Time Monitoring of Project Under JMVP. “****

**Address :-**

Vice Chairman & Project Director (Jal Marg Vikas Project)  
INLAND WATERWAYS AUTHORITY OF INDIA  
(Ministry of Shipping, Government of India)  
Head Office : A-13, Sector – 1, Noida – 201301

**Contact Details:-**

Phone : 0120-2544004, 2424544  
email : vc.iwai@nic.in ; samir@iwai.gov.in

6. The REol & draft ToR shall also be published on the website of IWAI ([www.iwai.nic.in](http://www.iwai.nic.in)), interested consultants are requested to go through the documents prior to submitting their Expression of Interest.
7. The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* dated January, 2011 (“Consultant Guidelines”), setting forth the World Bank's policy on conflict of interest.
8. A Firm or an individual Debarred by the World Bank in accordance with the anticorruption guidelines shall be ineligible for this Assignment in any form or way. A list of debarred firms and individuals is available at the Banks external website: [www.worldbank.org/debarr](http://www.worldbank.org/debarr).
9. A Consultant / consulting firm shall be selected in accordance with the Quality and Cost Based Selection method set out in the Bank's Guidelines.
10. Further information can be obtained at the address mentioned above during office hours.

**Instructions for submission of Expression of Interest:**

1. Accomplished Expression of Interest (Application) must be submitted together with a Letter of Intent not later than the date & time stated at sl 5.00. Documents in support of all qualification information shall be submitted with application. Proposal of EOI with

qualification information shall be furnished on / before the due date of submission at the address mentioned above.

2. The Application shall be basis of drawing up a shortlist of eligible Consultants who will be invited to submit proposal for services required.
3. All Applications shall be submitted in English.
5. A Consultant shall submit only one proposal. If a Consultant submits or participates in more than one proposal, all such proposals shall be disqualified. This does not, however, preclude a consulting firm to participate as a sub-consultant, or an individual to participate as a team member, in more than one proposal when circumstances justify and if permitted by the Request for Proposals.
6. The Application and all related correspondence and documents should be written in the English language. Supporting documents and printed literature furnished by Applicant with the Application may be in any other language provided that they are accompanied with translations in the English language. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Application, the English language translation shall prevail.
7. IWAJ reserves the right to reject any Applications, without assigning any reasons thereof.
8. The Applicant shall provide all the information sought under this Qualification Document. PMU, IWAJ would evaluate only those Applications that are received within the specified time and complete in all respects. Incomplete and/or conditional Applications shall be liable to rejection.

#### **Guidelines for preparation of Expression of Interest**

Following information shall be submitted:

1. Complete name of firm(s), date of establishment and type of organization whether individual, proprietorship, partnership, private limited company, public limited company etc.
2. Exact and complete corporate/registered/home office address, business address, telephone numbers, fax numbers, E-mail and cable address. For Consultant of foreign registry, indicate if there is any branch office(s) established in India with details in aforesaid manner.
3. If present firm(s) is the successor to or outgrowth of one or more predecessor firms, fresh name(s) of former entity (ties) and year(s) of their original establishment with details in aforesaid manner.
4. Present a brief narrative description of the firm(s). Kindly avoid submission of company brochures for the purpose description of the firm.
5. List of not more than two (2) principals of the consultant / consulting firm who may be contacted by this Office.
6. Listed principals must be empowered to speak to the owner for the firm or on policy and contractual matters.
7. Indicate financial figures from consultancy business for past 5 (five) financial years.
8. Organizational strength of Consultant shall be given.
9. Application Form .. Annexure-I
10. Terms of Reference... Annexure-II

**(Vice Chairman & Project Director)**

## Consultants Letter Head

Reference :-		Date:-		
To, Vice Chairman & Project Director IWAI – Jal Marg Vikas (Ministry of Shipping , GOI) A – 13, Sector – 1, Noida -201301				
<b>Subject :- Consultancy services for setting Up Of Digital Control Centre ( WAR ROOM )          at IWAI Noida Office for Real Time Monitoring of project under Jal Marg Vikas Project          for Capacity Augmentation of National Waterway-1 (JMVP).</b>  <b>File Reference : IWAI/WB/NW-1/4/10/2018</b> <b>Activity Ref : IN-IWAI-55634-CS-QCBS</b>				
<b>Dear Sir,</b> <b>Refer your Expression of Interest .....</b> <b>We are pleased to enclose our credentials for the subject cited assignment as per your requirements listed at Para 3 ( a through d).</b>				
SL.NO	Description of Documents	Documents required to be furnished	Yes / no	reference
1	Name of the Organization	<i>Copy of Certificate of Incorporation.</i>		
	Date of Establishment			
	Date of Commencement of Business			
	Type of Organization – Legal Status			
	Nature of Business			
	PAN No			
	GST No			
	Complete Postal Address with Pin Code			
	Telephone / Fax numbers/ Mobile no			
	E-mail and cable address.			
	Present a brief profile - narrative description of the firm(s)..	<i>Kindly avoid submission of company brochures for the purpose description of the firm</i>		
	Organizational strength of Consultant			
Key persons .. 2 principals with contact details to be Contacted by IWAI.				
1.1	EOI Submitted as Sole Applicant or Joint Venture	<i>If yes, Full details of JV Partner in the Form prescribed at sl.no 1 above.</i>		
	Details of Joint Venture Partner			
2	For Consultant of <b>Foreign registry</b> , indicate if there is any branch office(s)	<i>If yes, details as called at sl.no1 above.</i>		

	established in India with details in aforesaid manner				
3	Consultant should have been engaged in conducting similar activities for the past 10 years – copy of Certificate of Completions to be submitted along with the EOI		<i>Details of relevant Engagement,</i>		
3a	Consultant should have a minimum average annual turnover of INR 5 Crores in the last 3 financial years	2017-18	<i>CA certified declaration for last 3 years.</i>		
2016-17					
2015-16					
3b	Consultant should have completed 5 studies of similar / related work during last 10 years Similar/related works shall include: Digital surveillance project related to image based surveillance of large areas and analysis of the data captured ( using Geospatial data analysis and machine learning) and shall include work related to project management.		<i>Kindly Provide following details toward completed works.</i> • <i>Client's details</i> • <i>Scope of work</i> • <i>Date of commencement,</i> • <i>Date of completion,</i> • <i>Synopsis of the Projects ( relevant certificates of Commencement &amp; completions should be enclosed)</i>	<i>Study-1</i>	
				<i>Study-2</i>	
				<i>Study-3</i>	
				<i>Study-4</i>	
				<i>Study-5</i>	
3c	Consultant should have a minimum of 50 employees on its payroll – Declaration to be submitted		<i>Declaration to be made by the Manager HR of the company.</i>		
3d	Profile of the Persons likely to be deployed for this Assignment. <i>Please enclose details of methodology to be adopted - the Team Size &amp; CV of the Team Leader &amp; others.</i>		<i>Please provide the CV's with the details</i>		
<div style="text-align: right;">Signature &amp; Name of the Consultant Date &amp; Seal</div> <div style="text-align: center;"><u>Certificate</u></div> <div><u>This is to confirm &amp; certify that the information furnished with this Expression of Interest (EOI) are true &amp; Correct and the firm has not been debarred by the World Bank.</u></div> <div style="text-align: center;">Signature &amp; Name of the Consultant Date &amp; Seal</div>					

**Enclosure :-**  
**As listed here under:-**



## Terms of Reference

### **Assignment Title: Terms of Reference (ToR) for Setting up of Digital Control Center (War Room) at IWAI Noida Office for Real Time Monitoring of Project Under JMVP.**

#### **1. Background**

Inland Waterways Authority of India (IWAI) is a statutory body under Ministry of Shipping, Government of India. IWAI was set up in 1986 for regulation and development of Inland Waterways for the purposes of shipping and navigation. IWAI is primarily responsible for development, maintenance and regulation of Inland Water Transport (IWT) in the country and specifically National Waterways (NW).

The head office of the Authority is at Noida. The Authority also has its regional offices at Patna, Kolkata, Guwahati and Kochi and sub-offices at Allahabad, Varanasi, Bhagalpur, Faraka, Hemnagar, Dibrugarh (Assam), Kollam, Bhubaneswar (Odisha) and Vijayawada (A.P.). India has about 14,500 km of navigable waterways which comprise of rivers, canals, backwaters, creeks, etc.

The Ganga-Bhagirathi-Hooghly river system from Haldia to Allahabad has been declared as National Waterway -1 (NW-1). It is a natural waterway of some 1,620km in length and passes through the States of West Bengal, Jharkhand, Bihar and Uttar Pradesh. It links the ocean gateway ports of Haldia and Kolkata to Bhagalpur, Patna, Ghazipur, Varanasi and Allahabad, their industrial hinterlands, and several industries located along the Ganga basin.

IWAI is undertaking a project namely Jal Marg Vikas Project (JMVP) for capacity augmentation on National Waterway -1 (Varanasi-Haldia stretch of the Ganga-Bhagirathi-Hooghly River System). The World Bank is providing Technical Assistance and Investment Support for the project. The project would enable commercial navigation of 1500-2000 tonne vessels from Haldia to Varanasi. The scope will broadly include development & maintenance of – Fairway along Haldia – Varanasi stretch, multimodal terminals, new navigation lock and navigation aids. To promote environment friendly initiatives, development of LNG bunkering facilities along the corridor is also envisaged.

Accordingly, IWAI intends to conduct digital monitoring of its construction site activities and has identified the need to seek assistance of and collaborate with a Consultant to guide IWAI through the processes of identifying their digital monitoring needs, identifying possible technologies and developing use cases, evaluating and recommending best fit partners, and subsequent project management of the implementation and roll out of the selected solutions.

The selected Consultant must be independent and will not be able to bid for any downstream products, packages and services involved in achieving IWAI's business goals for this digital monitoring initiative.

#### **2. Objective of Consultancy**

The objective of this project is to be able to capture real-time data on construction site activity and provide status reports on project works, enable good governance and accountability, and establish a centralized command center to monitor onsite activities.

Accordingly IWAI is pursuing a three phase approach towards assessment and implementation plan with all the infrastructure requirements and specifications and Implementation cum Hand holding.

Phase-I will include the study of the requirements feasibility, the assessment need for development of IT infrastructure, VOIP and other restrictions. Functional Fitment Assessment, Architectural Design & Detailed Road Map

Phase-II shall be taken up after completion of Phase-I, the Technical Specification of the equipment shall be developed & Procurement for Hardware, Software & allied service and system, Floating of RFP and Tendering

Phase-III Installation, Testing and commissioning of the equipment in phased manner. Development of report and dashboard for project evaluation, program Management and monitoring project activities, IT securities and STQC , Facilitation of User Acceptance Testing, User training and Post Go-Live assistance.

This section provides indicative details of the major activities and tasks envisaged to be undertaken by the Consultant. These and any other necessary activities and tasks needed to achieve the outlined business objectives must be included in the Consultant's response proposal against this EOI ( Expression of Interest)

### 3. **Scope of Work**

IWAI is seeking the services of Consultant's to assist IWAI in carrying out the As-is assessment of the current system and understand the challenges faced by IWAI and design the future architecture based on functional fitment and available technology. Accordingly,

1. **Analyze business requirements including the integration of VOIP ( Voice over Internet Protocol) and define solution architecture**
2. **Establish a Project Charter**
3. **Proposal Process management**
4. **Program and Project Management**

#### 3.1 **Analyze business requirements and define solution architecture**

- Understand broad level requirement of IWAI for digital monitoring
- Identify technologies that IWAI can implement
- Conduct site visits to understand the current processes, identify current infrastructure available and identify challenges for implementing technologies planned to be proposed
- Study current infrastructure available at IWAI headquarters including VOIP infrastructure at HQ, Regional offices & construction sites.
- Develop a high level understanding of the bottlenecks faced by IWAI
- Conduct gap assessment with future architecture
- Define future state architecture by defining baseline, target, and optimal architecture
- Map out pros and cons of each technology, including cost estimates and rough implementation timelines, and discuss with IWAI senior management
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- Define to-be operating model for IWAI
- Create Business/Functional Architecture detailing processes and interaction between them
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- Prepare business case for management sign off for options agreed by stakeholders

### **3.2 Establish a Project Charter**

- Establish the project's guiding principles and processes
- Illustrate how the project deliverable will meet general business requirements
- Establish clear success criteria based on expected benefits
- Examine assumptions
- Weigh risks and prepare risk mitigation plans
- Communicate control mechanisms to stakeholders

### **3.3 Proposal Process management**

- Initiate Pre-bid connects with vendors
- Develop evaluation framework in consultation with IWAI senior management
- Communicate key information, submission guidelines and timelines to bidders
- Assist IWAI in preparing and publishing RFP
- Evaluate vendor responses
- Develop Total Cost of Ownership (TCO) for each vendor response
- Provide recommendations on best fit products and vendors

### **3.4 Program and Project Management**

#### **3.4.1 Setting up Program office**

- Working with governance team including providing fortnightly reports to Steering Committee on progress
- Endorsing any major decisions to be made such as sign off deliverables for key project milestones
- Prepare organizational change management program and co-ordinate execution of related communication management activities
- Post Implementation Audit on the feasibility and effectiveness of the applications deployed

#### **3.4.2 Undertake project monitoring and control activities, including weekly / fortnightly project reviews**

#### **3.4.3 Ongoing program monitoring to cover the following aspects of program management**

- Issues Management
- Testing & Quality Assurance Plan
- Risk Management
- Resource Management
- Scope Management
- Requirements change management
- Time and Cost Monitoring
- Training and handholding need requirements & evaluate training effectiveness

Please note that the program management tasks are inclusive of but not limited to the list above.

### **4.0 Selection /Eligibility parameters for EOI shall be as following:**

4.8 Consultant should be engaged in conducting similar activities in last 10 years – copy of Certificate of Incorporation to be submitted along with the EOI.

4.9 Consultant must have a minimum financial turnover of INR 5 crores in the last three financial years – CA certified declaration for last 3 years to be submitted along with the EOI.

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. Similar/related works shall include: *Digital surveillance projects related to image based surveillance of large areas and analysis of the data captured (using geospatial data analysis and machine learning) and shall include work related to project management*
- 4.11 Consultant must have a minimum of 50 employees on its payroll – Declaration to be submitted
- 4.12 Copy of Power of Attorney of the signatory/ies signing the EoI and/or associating to submit the EoI - to be submitted.
- 4.13 Consultants submitting proposals as association, must clarify the nature of association, whether JV or sub-consultancy.
- 4.14 In case of EoI submission as Joint Venture, copy of JV Agreement to be submitted.

## 5 Team Composition and key personnel qualifications

The team of the consultant shall comprise of the following key experts and the key experts shall meet the minimum qualification criteria as mentioned hereunder.

S.No	Key Expert	Minimum Qualifications	Experience
1.	Photogrammetry expert	B. Tech (IT or CS). Preferably MSc in Geospatial Technologies.	Photogrammetry expert with at least 5 years of experience in photogrammetry. Total experience should be minimum 7 years. Should have successfully executed at least 3 similar projects.
2.	Project Management professional	Minimum qualification – B. Tech (IT or CS) and MBA.	Project management professionals with at least 5 years of experience. Total experience should be at least 7 years. Should have successfully managed at least 3 Similar Projects
3.	Physical Security expert	Engg. Graduate or diploma holder ( B.tech; Msc IT.. etc)	Minimum 10 years of experience in physical security and surveillance. Total experience should be minimum 12 years. Should have successfully executed at least 5 surveillance projects.
4.	Data Analytics expert	B.Tech (IT or computer science) or BCA with 3 years' experience	At least 3 years of experience in data analytics. Total experience should be minimum 5 years. Should have successfully executed at least 2 data analysis projects.

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