



caBIG™ cancer Biomedical
Informatics Grid™

an initiative of the National Cancer Institute

AIM Developer RFP Instructions

caBIG-IMG-99-01-14092006

CABIG™

In Vivo Imaging Workspace

Annotations Imaging Markup Development Project

REQUEST FOR PROPOSALS INSTRUCTIONS

September 14, 2006



caBIG™ In Vivo Imaging Workspace
Annotations Imaging Platform Developer

REQUEST FOR PROPOSAL INSTRUCTIONS

TABLE OF CONTENTS

Background	3
Project Details	4
Proposal Instructions	5
Proposal Evaluation	10
Partnering	12
Proposal Selection	12



BACKGROUND

The cancer Biomedical Informatics Grid, or caBIG™, is an informatics infrastructure that will connect teams of clinical and basic cancer and biomedical researchers together to enable them to better develop and share tools and data in an open environment with common standards. caBIG™ will create a voluntary virtual network (or grid) that links individuals and institutions both nationally and internationally, effectively forming a World Wide Web of cancer research. caBIG™ will allow researchers to answer research questions more rapidly and efficiently, thereby promising to accelerate progress in all aspects of cancer research– from etiologic research to prevention, early detection and treatment. Ultimately, because caBIG™ will provide a common unifying force that facilitates progress in cancer research, the most important beneficiaries will be cancer patients and the public at large.

Key to the success of caBIG™ is the development of solutions that are both semantically and syntactically inter-operable. This includes solutions newly developed for caBIG™ as well as existing commercial and locally developed applications. This involves the development of common models for Imaging Workspace areas of interest, agreement on a robust set of computable data types and terminology standards, and the development and/or adoption of messaging standards, interchange formats and common Application Programming Interfaces (APIs). By providing a set of semantically and syntactically interoperable tools, the caBIG™ Imaging Workspace project will ultimately provide the cancer research community with more choices, and a move towards modular and interoperable software architecture. Development of these solutions will be based on key needs and priorities identified by the Institute community and will be developed, tested and validated by Institutions participating in the caBIG™ initiative.

In vivo imaging is an essential component of basic and clinical cancer research. The caBIG™ in vivo Imaging Workspace is intended to advance imaging informatics by focusing on creating, optimizing, and validating software tools and modeling methods to extract meaning from in vivo imaging data and thereby improving outcomes for patients with cancer or pre-cancer. As a necessary pre-condition for this, the participants in this workspace are also actively engaged in promulgating, maintaining, refining, and evolving interoperable in vivo imaging informatics data standards (e.g., DICOM, HL-7, C-DISK) to ensure availability of imaging data to the research and clinical communities.

The purpose of this project is to develop a standard for medical image annotation and markup. While the primary focus is on the use of this standard in the markup and annotation of images used in the research space, and in particular,



the image based cancer clinical trial, the standard must be suitable for use in the annotation and markup of all medical images used for clinical and other research tasks. The project requires the delivery of a small number of sample instances of annotations and markups, a transcoding software application that also validates the compliance with the AIM standard and a reference implementation of an authoring and rendering software module suitable for integration with the caBIG Imaging Workspace's eXtensible Imaging Platform (XIP) project.

PROJECT DETAILS

The overall role of the Developer in this project will be to develop a standard for medical image annotation and markup, and to implement and deliver the requirements as "high-quality" software that can be initially demonstrated at the RSNA 2006 annual meeting.



The following resources may be useful to the offeror in preparing the proposal:

caBIG™ Program website

<https://cabig.nci.nih.gov/>

caBIG™ Compatibility Guidelines

https://cabig.nci.nih.gov/guidelines_documentation

Enterprise Vocabulary Services (EVS)

http://ncicb.nci.nih.gov/NCICB/infrastructure/cacore_overview/vocabulary

Cancer Data Standards Repository (caDRS)

http://ncicb.nci.nih.gov/NCICB/infrastructure/cacore_overview/cadsr

Imaging Workspace, including meeting minutes and Face to Face Meeting materials

<https://cabig.nci.nih.gov/workspaces/Imaging>

caBIG™ Training

<https://cabig.nci.nih.gov/training>

PROPOSAL INSTRUCTIONS

1.0 PROPOSAL PURPOSE

The purpose of the proposal is to provide an overview of how the offeror intends to carry out the tasks to be performed under the statement of work (SOW).

2.0 LETTER OF INTENT

All offerors are required to submit a letter of intent to bid by **5:00 pm ET, September 28, 2006**. Submit your Letter of Intent to Judie Phillips, Phillips_Judie@bah.com. Qualified individuals from organizations that do not submit a Letter of Intent may be called upon to participate as a reviewer in the proposal evaluation.

Only one letter of intent and proposal submission will be accepted from each offering organization. Multiple submissions describing differing approaches to executing the Statement of Work cannot be accepted.



3.0 QUESTIONS AND INQUIRIES

Questions and inquiries will be accepted from all offerors receiving this RFP. Written questions should be submitted to Judie Phillips, Phillips_Judie@bah.com. All questions must be received by **5:00 pm ET, September 28, 2006**.

Answers to these questions will be delivered to all participating responders no later than **5:00 pm ET, October 5, 2006**, to allow adequate time to incorporate this information into the proposal.

4.0 DUE DATE AND FORMAT OF SUBMISSION

Your complete proposal is due no later than **5:00 pm ET, October 19, 2006**. Submit **one** electronic file in Word or PDF format to Judie Phillips, Phillips_Judie@bah.com or mail to her attention at Booz Allen Hamilton, 13200 Woodland Park Drive, Herndon, VA 20171. No responses will be accepted after this date.

For those companies who are not currently working with caBIG, you should also complete and submit the [Representations, Certifications, And Other Statements Form](#) which can be found at the top of the BAH Offerings page found at <http://bahcabigcontracts.com/> with your proposal.

5.0 AGREEMENT TYPE

A firm fixed price task order will be awarded. In a firm fixed price task order agreement, the subcontractor agrees to deliver the proposed deliverables on the proposed date for the agreed-upon price, inclusive of labor, travel and equipment expenses.

6.0 STATEMENT OF WORK

See the attached SOW # caBIG-IMG-99-01-14092006. In responding to this RFP, the offeror may propose that certain deliverables in this SOW are not relevant to their proposal. In this case, justification for this must be provided in the Technical Proposal (Section 8.1). Moreover, additional deliverables may be suggested by the offeror – these should be justified in the Technical Proposal and included in the Deliverable Payment Schedule (Section 8.3).

The General Contractor reserves the right to make multiple awards against this SOW.



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7.0 PERIOD OF PERFORMANCE

The period of performance for this work is 12 Months.



8.0 PROPOSAL CONTENT

The information required to be submitted in response to this RFP has been determined to be essential in the bid evaluation and contract award process. The following components must be submitted, using the forms provided. Components of the proposal are:

- Technical Proposal, including resumes of key personnel
- Budget Proposal, including detailed travel justification
- Deliverable Payment Schedule

8.1 Technical Proposal

The technical proposal should demonstrate your organization's capability and approach for carrying out the tasks described in the SOW. Please include:

- Title page with contact person, address, phone, fax and email address
- A description of the research barrier to be addressed and the user community to be engaged.
- General approach toward completion of work
- Methodologies, concepts, theories and/or procedures to be used
- Resumes for all key personnel assigned to work on this project.

There is no required length for a technical proposal, but it should not exceed thirty (30) pages (exclusive of resumes). It should be long enough to concisely define the work to be done on the project.

8.2 Budget Proposal

The budget proposal provides detailed, itemized pricing for the proposed effort. The proposal must be inclusive of all personnel, travel, equipment, and supplies needed to complete the project. The budget proposal must provide the name and/or title of the personnel assigned to each deliverable and the number of hours required by these personnel to complete the deliverable. The total dollar value of the budget proposal must match the total dollar value on the Deliverable Payment Schedule (Section 8.3).

All travel estimates must conform to the current Federal Travel Regulations (FTRs). Food, travel and lodging payments are based on the official government per diem rates found at

http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentId=17943&contentType=GSA_BASIC.



A detailed justification of the travel budget must be provided and should include the purpose of each trip, the city of origin and the destination, the mode of transportation, and the total cost of the trip.

The budget proposal need only be as long as necessary to describe the costs. There is no page limit for this section.

8.3 Deliverable Payment Schedule

The Deliverable Payment Schedule outlines the cost and timing for completion of each deliverable and thereby clarifies expectations. Payment for contract work will be based on the receipt and approval of all deliverables (artifacts) listed in the SOW, plus additional deliverables justified in the Technical Proposal. Each artifact (deliverable) described in the Scope of Work section of the SOW document must be represented in the deliverable schedule.

All reports and deliverables will be inspected by Booz Allen and final approval is subject to approval by the NCI.



PROPOSAL EVALUATION

Proposals will be evaluated by an Evaluation Committee composed of representatives of the general contractor and NCI. On occasion, the Evaluation Committee may choose to make use of the expertise of an outside consultant(s).

1.0 TECHNICAL EVALUATION CRITERIA

Evaluation criteria have been established that will enable the evaluation committee to systematically compare responses to this Request for Proposal, in the interest of conducting fair and open competition for the award of this work. The successful offeror will need to demonstrate a plan with appropriate stakeholder involvement, a solid technical approach, extensive domain knowledge and experience, an appropriate staffing plan, and adequate knowledge of caBIG™ concepts.

The technical evaluation criteria, as well as their weighted importance to the Evaluation Committee, have been included below.



No.	Criteria	Importance/Definition	Evaluation Weight
1.	Stakeholder Involvement Plan	The ability of the proposing organization's plan to balance the need to engage the end users across the research community throughout the project while simultaneously delivering the product within the proposed timeframe.	15%
2.	Technical Approach	The level to which the proposal outlines a solid approach for applying information technology development practices to the scientific plan, employing a unified software development process, such that the end product can be used by the end-user community; and extent to which offeror demonstrates a rigorous project schedule with key incremental milestones for review.	30%
3.	Domain Knowledge and Experience	Qualifications of the proposing organization (including stated subcontractors and collaborators) that directly relate to scalable software development, using defined processes, in the <i>in vivo</i> Imaging environment, or other applicable or relevant experience.	25%
4.	Staffing Plan	Demonstration of appropriate allocation of personnel that are specifically qualified to achieve the development of solutions to the research problems described in the Statement of Work.	20%
5.	Knowledge of caBIG™ concepts	The level to which the proposing organization can demonstrate their knowledge of the concepts of caBIG™ (e.g. syntactic and semantic interoperability) and how those concepts will support the project goals.	10%



2.0 BUDGET EVALUATION

While a competitive cost proposal is not a formal evaluation criteria, it is important to demonstrate that the cost proposed is in line with the projected real value that the caBIG™ community as a whole will realize as a result of this work.

3.0 BEST AND FINAL OFFER

The General Contractor reserves the right to obtain Best and Final Offers (BAFO) if the evaluation committee determines that additional information is necessary in order to make a decision. In this case, each acceptable or potentially acceptable offeror will be given the same opportunity to submit best and final offers. If, for example, one proposal needs clarification or additional information in the program description and another in the budget justification, each offeror will be given the opportunity to clarify or define both the program description and the budget justification.

PARTNERING

Partnerships (such as public/private partnerships) that strengthen the offeror's team staffing plan enabling them to achieve the highest quality delivery level for this project are welcome. A single organization must be the prime respondent on the RFP response, and the partnering organization designated as a subcontractor. Organizational qualifications of the subcontractor should be detailed in the Technical Proposal, including relevant resumes.

PROPOSAL SELECTION

The evaluation committee will meet shortly after proposals are received to identify proposals for which Best and Final Offers will be solicited. If a BAFO process is initiated, selected offerors will have one week in which to revise and return their proposals and the evaluation committee will reconvene upon receipt of these revised offers.