

University Grants Commission of Bangladesh
Higher Education Quality Enhancement Project (HEQEP)

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Ref: UGC/HEQEP/Procurement/S9/2010-90/598

Dated: May 9, 2010

Request for Expression of Interest (Eoi)
for
International Partnership for BdREN

1. This request for expression of interest follows the general procurement notice for this project that appeared in United Nations Development Business on January 10, 2009 (GPN-1).
2. The Government of the People's Republic of Bangladesh received a credit (**IDA Credit No. 4544-BD**) amounting to about US\$ 81.0 million from the International Development Association (IDA) towards funding the cost of the Higher Education Quality Enhancement Project (HEQEP) being implemented by the University Grants Commission (UGC) of Bangladesh..
3. One of the major components of the Project is the creation of the Bangladesh Research and Education Network (BdREN), a high performance Information and Communication Technology (ICT) network providing connectivity among education and research institutions in both public and private sectors to enable academics, scientists and researchers engaged in higher education and research to communicate with their peers within the country. BdREN will also be connected with other regional and trans-continental Research and Education Networks (RENS) and thus link faculty, researchers and students of Bangladesh to the global academic community and learning resources. It will also facilitate international collaborative research and will catalyze innovation in the country. BdREN office will be transferred into a Trust organization in the operation phase.
4. UGC intends to apply part of the proceeds of this credit to payments under the contract for the selection of an international Partner Organisation. The main role of the BdREN Partner shall be to provide peer support to BdREN during technical design and installation of the system, operations of BdREN and for capacity building for the BdREN office/Trust.
5. The BdREN Partner shall
 - provide all the technical support as and when required for successful establishment of the proposed Network (BdREN);
 - provide sustained technical consultation and guidance to the BdREN for its technical soundness and conformance to the state-of-the-art practices in Research and Education Network initiatives worldwide; and
 - develop the capacity of the BdREN Team and concerned institutions for managing the BdREN in an efficient manner.
6. The scope of services of the BdREN Partner organisation, among others, may cover the following:
 - provide technical assistance in the preparation of the technical design of the BdREN;
 - guide in designing specified procurement components and specifications for all required equipment;
 - guide preparation of bidding documents and assist in the evaluation of bids;
 - provide operational acceptance of the BdREN equipment and the system;
 - establish technical operational procedures for running of the BdREN organization, including operational manual, user document, contractual practices etc;
 - arrange for appropriate training for the BdREN team on the design, configuration, operation and maintenance of BdREN and campus networks;
 - provide intra-inter exchange program for BdREN management team for cross-fertilization of the technical knowledge.
7. The implementation of the BdREN will involve deployment of staff with skill and experience in network infrastructure support and design.
8. The partner is expected to be a major university, a REN, or a team of organizations with collective substantial experience in developing, managing, and operating advanced networking operation for universities and research and education network services.



9. The potential organization of team must have
 - (a) internationally recognized expertise in large-scale ICT network systems and related systems management within the higher education sector;
 - (b) experience in working with senior line management in the design, development and implementation of multiple network systems and testing of the same for compliance to the required standard;
 - (c) understanding of working environment within a developing economy such as Bangladesh;
 - (d) full understanding of how integrated ICT networking management can impact organizational performance in the higher education sector; and
 - (e) Experience in providing training on this field.
10. The selected organization will complete the services within an estimated **42 (Forty-two) staff-months** It is expected that services will commence in **July 2010** and will be completed in **June 2013** subject to satisfactory performance to be evaluated periodically.
11. The UGC now invites eligible and qualified organizations to indicate their interest in providing the services. Interested organizations must provide information that they are qualified to perform the services (documents may include – description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). The organization must provide focussed information demonstrating that they are fully qualified to perform the service.
12. Detailed terms of reference (ToR) and other related document will be available in the web: www.heqep-ugc.gov.bd, www.ugc.gov.bd and <http://cptu.gov.bd>. Interested organizations may also collect the ToR and obtain further information upon request from the address provided below during office hours on working days.
13. The Organization may associate other organizations to enhance their qualifications, but should mention whether the association is in the form of a "Joint Venture" or "Sub-consultancy". In the case of an association, all members of such "association" should have real and well defined inputs to the assignment, and the total number of firms including their associates shall not exceed four (4).
14. A firm will be selected in accordance with the procedures set out in the World Bank's Guidelines: Selection and Employment of Consultants by World Bank borrowers, May 2004 and revised in October 2006.
15. The EOIs will be reviewed on the basis of the following criteria:
 - (a) Availability of key professional staff (list of management and specialist personnel)
 - (b) Availability of Resources
 - (c) Experience of the organization in ICT/REN system integration, ICT/REN related services
 - (d) Experience in similar task (related to RENs)
 - (e) Support services of the organization
 - (f) Proposed offering on training for cross fertilization of technical knowledge.
16. Expressions of Interest shall be submitted on or before **June 28, 2010** during office hours in sealed envelope to Project Director, HEQEP and be clearly marked "Expression of Interest for BdREN Partnership". Applications through e-mail should preferably have the same text in the subject line of the e-mail, and must be followed by the signed original copy.
17. The UGC reserves the right to accept or reject any or all Eols.



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University Grants Commission of Bangladesh
Higher Education Quality Enhancement Project (HEQEP)
IDA Credit No. 4544-BD

Terms of Reference
For
International Partnership in the Implementation of
Bangladesh Research and Education Network
(Package No.-S9)

1. BACKGROUND

The Ministry of Education (MoE) and the University Grants Commission (UGC) of Bangladesh are currently implementing the Higher Education Quality Enhancement Project (HEQEP). The project aims to improve the quality and relevance of the teaching and research environment in higher education institutions through encouraging both innovation and accountability within universities and by enhancing the technical and institutional capacity of the higher education sector.

The HEQEP will support the creation of the Bangladesh Research and Education Network (BdREN), a high performance information and communications technologies (ICT) network providing connectivity among education and research institutions in both public and private sectors. The network, with its state-of-the-art equipment and access to broadband internet connections at a reasonable price, will support geographically dispersed academics, scientists and researchers with reliable access to high-end computing, simulation tools and datasets. BdREN will also be connected with other regional and trans-continental Research and Education Networks (RENs) and thus link faculty and students of Bangladesh to the global academic community and learning resources. It will facilitate international collaborative research and will catalyze innovation in the country.

Although it requires considerable initial investment, the BdREN is a cost-efficient alternative to conventional ways to boost connectivity and communication within the academic community. Once established and operational for universities, it will be possible to extend the BdREN membership and increase its beneficiaries to affiliated colleges at a lesser cost.

Under the HEQEP, BdREN will establish its key infrastructure including the Network Operating Center (NOC) and Points of Presences (POPs). It will also support the establishment of Basic Campus Networks (BCN) in at least five public universities that currently have no such local area networks.

The project will set up the NOC in UGC building Dhaka, and POPs in different locations in the country. The NOC will be equipped with essential equipment and technical staff for the operation and management of BdREN activities. BdREN will take on lease the backbone infrastructure and will develop a core network of multiple of giga bit per second capacity. Initially about one hundred institutions will be connected to this network.

BdREN will eventually be operated by a non-profit Trust organization with a board consisting of representatives from the user community, UGC, MoE and other members co-opted for their expertise and position in relevant organizations. This transition will take place before the end of the project life. Shifting the responsibility of the operation to a Trust will allow full ownership of BdREN by the user community within the oversight of the UGC.

2. OBJECTIVE OF THE PARTNERSHIP

The International partnership is needed to:

- Provide all the technical support as and when required for successful establishment of the proposed Bangladesh Research and Education Network (BdREN);
- Provide sustained technical consultation and guidance to the BdREN for its technical soundness and conformance to the state-of-the-art practices in Research and Education Network initiatives worldwide;
- Build the capacity of the BdREN team and concerned institutions as necessary for managing the BdREN in an efficient manner;
- Complement technical know-how of the local team.

3. SCOPE OF WORK OF THE INTERNATIONAL PARTNERSHIP

The International partnership is expected to provide following services for achieving the objectives of BdREN but would not be limited to:

- Technical assistance to UGC/HEQEP in the preparation of the technical design of the BdREN and ensure its soundness and quality.
- Cooperation in preparing technical requirements and specifications for equipments and accessories of BdREN.
- Review of the bidding documents.
- Provide guidance in preparing technical specification and cost estimation and suggest required design and configuration improvements if needed.
- Review of the draft technical and financial evaluation report of the bids.
- Review of the final Bill of Quantities (BoQs).
- Verification of interim and final certification that ensures that the delivered components are as per specifications and are operational.
- Help in operational acceptance of the BdREN equipment and the system.
- Detailed consultation to UGC/HEQEP to establish technical operational procedures for running of the BdREN organization, including operational manual, user document, contractual practices etc.
- Training for the BdREN team on the design and configuration of the BdREN backbone and access network, including security, configuration, monitoring, maintenance, etc.
- Provision of appropriate training and technical expertise on the design and configuration of campus networks and their operations in order to ensure smooth interface of the campus operations with the REN.
- Arrangement of intra-inter exchange program for BdREN management team for cross-fertilization of the technical knowledge to keep them update on the technical developments in the REN environment of the world.

4. ELIGIBILITY OF THE PARTNERS

The International Partner (IP) should have various technical expertise pertaining to the implementation of a REN as needed and identified by UGC/HEQEP including a strong knowledge and experience in the operation of RENs.

The partner is expected to be a major university, a REN, or a team of organizations with collective substantial experience in managing, and operating advanced networking operation for universities and research and education network services. The IP should have various technical expertise on training pertaining to REN operations, maintenance and improvements, i.e., for cross fertilization of technical knowledge.

5. BdREN IMPLEMENTATION

To implement the BdREN, the project planned to commission a local team under UGC supported by a Technical Support Team (TST) of two consultants. In addition, a BdREN office will be established with adequate professional staff-members.

The BdREN team will execute and co-ordinate all the steps required to establish the BdREN. These major steps include establishing the BdREN organization, technical design of the network, equipment planning, selection, procurement, evaluation, NOC establishment, staff selection, establishment of operational procedures, signing up of agreements with all the stakeholders and the transition of BdREN into an independent trust.

The IP is expected to provide sustained technical consultation and guidance to the BdREN Team as and when required so that BdREN can be technically sound and conform to the state-of-the-art practices in REN management and attain the vision on Research and Education Network initiatives worldwide. The IP is expected to complement the technical knowledge of the BdREN Team. It is therefore expected that the IP must have a strong knowledge and experience in the operations of REN. The IP will not be based in Dhaka physically, however, if situation permits, a liaison office could be established in consultation with the UGC.

6. BdREN IMPLEMENTATION PHASES

The implementation plan is tentatively comprised of three phases:

PHASE-I Preparation: Includes hiring of officers for BdREN office, preliminary system design and preparation of specifications, liaise with the stakeholder community – Universities, Research Institutions,

Prepare standard bidding documents, in line with World Bank and GoB guidelines, Launch Bidding Process, Complete Evaluation of Bids, Complete award of contract, etc.

PHASE-II: Installation and Commissioning: Hiring of full operation staff for the BdREN, carry out outreach and capacity building activities for Universities and Research Institutions, prepare BdREN business plan and BdREN strategy, complete installation of Basic Campus Networks in some universities, complete installation of BdREN, complete operational acceptance test, etc.

PHASE-III: Transition to Trust: Transfer BdREN to a Trust Organization, finalizing arrangement with the trust organs such as Board of Trustees, Technical Advisory Committee, and Special Interest Groups, registration, etc.

The IP would provide access to necessary other technical expertise as required from time to time, with expertise, arise during implementation of the BdREN, for capacity building activities.

7. POTENTIAL KEY PERSONNEL

The partnership together should have personnel strengths with following (but not limited to) combined experiences:

7.1. Partnership Principal-Investigator: A university professor or senior engineer. The person must have a terminal degree in engineering with specialization in advanced networking area with 10+ years of experience in higher education networks, systems and applications. Must be familiar with latest applications of information technology and networking for higher education. Must be able to work in multicultural collaborative environment. The person to lead and coordinate the exchange of expertise between the partnership organizations and its Bangladesh counterparts and

coordinate various specialized training operations needed. The person to provide the vision needed for an emerging country REN.

7.2. REN Operations Specialist(s): One or more Network engineers with graduate degree in the area and 10-5 years of first-hand and detailed experience in the running of a Research and Education Network, large campus networks, or WAN with specific expertise in the overall operation (equipment configuration, architecture, network monitoring, traffic engineering, NOC operations, network security, etc.) of a REN preferably with dark fiber-based networks. The person(s) to provide the engineering knowledge required for the operation and design of the backbone and access network, NOC, selection of equipment, evaluation of bidding etc.

7.3. REN Management Specialist: A senior personnel with graduate degree in the area. Should have 10-5 years of current experience in senior management/lead position of a REN. Should be involved with the establishment and guidance of a Research and Education Networks. Should be familiar with all management tasks of REN or large Campus Area Network. The person to provide the operational knowledge required for the management and operation (operational manual, policy setup, personnel planning, contract management etc.) of the REN organization.

7.4. Information Systems Specialist: A Network/Information Systems Engineer with graduate and professional degree(s) in the area. Should have 7+ years experience in management/lead position of a major University. The person to be able to provide vision in the operation and guidance of Campus Information Systems Technology divisions and be able to provide the current and future campus network and information systems and educational applications requirements and perspective in the establishment of a modern customer centric REN.

8. DELIVERABLES

The key deliverables include the following but would not be limited to:

- Verification of system design and technical specifications documents.
- Technical Review for the selection of qualified vendors for supply and installation of the equipment.
- Certifications for installation and operation of REN elements.
- Guidance in REN membership management practices.
- Help BdREN User Policy Document development.
- Help BdREN Operations & Maintenance Manual development.
- Programs including training and continuous capacity building.
- An Inception Report, Task Reports and a Completion Report.

8. TIMING AND DURATION OF THE ASSIGNMENT

The estimated duration of assignment is about 36 (Thirty-six) months and is expected to start from July 2010. However, the duration of the assignment will depend on the performance of the International Partner which will be reviewed periodically by the IDA/GOB joint missions.

9. REPORTING

The external partners will submit all necessary papers (designs, specifications, contract, and financial matters, etc) to Project Director, HEQEP. The IP will need to work closely with TST Consultants, and BdREN staff and the universities of Bangladesh. Designated Member(s) of the UGC responsible for the BdREN will closely follow up with the IP for all technical collaborations.

The International Partner shall deliver the following reports:

Reports and Deliverables	Delivery Time	Reports to be submitted to	Number of Copies
Inception Report	Within one month of the signing of contract	Client and copy to the relevant UGC Member	Ten (10)
Monthly Reports	Within seven (7) days of the completion of the preceding month	Client and copy to the relevant UGC Member	Ten (10)
Special Reports	As and when required by the Client	Client and copy to the relevant UGC Member	Six (6)
Specific Deliverables	Within the timeframe and as mentioned in the Scope of Services	Client and copy to the relevant UGC Member	Six (6)
Draft Final Report	Six weeks before the completion of the assignment	Client and copy to the relevant UGC Member	Six (6)
Final Report	Two weeks before the completion of the assignment.	Client and copy to the relevant UGC Member	Fifteen (15)

10. DATA, LOCAL SERVICES, PERSONNEL AND FACILITIES TO BE PROVIDED BY THE CLIENT

The Client will provide to the Partner all available technical data and reports related to the assignment. Office space with internet service shall be provided for a maximum of three experts of the International Partner.