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Hitechvalley iNet
An ISO 9001:2000 Certified IT Company

Get E-bidding portal for your organization
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New E-Bidding System With Online Submission Feature



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Research on E-bidding

In context of Nepal regarding E-bidding system discussion on two kinds of approach is going on. They are

- **Offline E-bidding approach**

Bidder and Buyer prepares bidding related document offline and after bid documents get prepared access online system and publish/ submit bid. Advantage to this system is during online only tested compiled work need to be transferred to online system. This save online access time and reduces chances of mistakes. Another advantage is same evaluation standard for hardcopy and e-submission is possible.

- **Online E-bidding approach**

Buyer directly access online system to prepare and publish BoQ and Qualification. Bidders for submitting BoQ and Qualification directly access online system. No matter chances mistakes (due to common human error mistakes) is high and online access time is bit high compared to formal approach but helps extending current E-bidding system to E-evaluation stage.

Hitechvalley iNet is continually researching on both above discussed form of E-bidding system in order to make E-bidding sustainable and contextual with time continuous research and analysis is must. Hence since its establishment at DOR, dedicated team from continually worked on this area and upgraded the system as per the demand of time and available infrastructure at country.

Research on Offline E-bidding system and Solutions

- **Bidders inconvenience on using existing E-bidding systems of Nepal**

Bidders using E-submission mostly encountering problems on

- Uploading Bid document either due to size or internet constraints
- Tracking whether document uploaded successfully or crashed due to transmission error
- Doing rework from start if interconnection lost or machine restarted or some mistake found in prepared document during bid submission.

Solution:

Solution for all above is found and integrated on DUDBC E-bidding portal (www.edudbc.gov.np)

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- Re-uploading of common documents (like VAT, Company Registration e.t.c.) for every bid.

Every time bidder bids, he has to upload common documents for each bid. This unnecessary waste server space and bidders time.

Solution:

To sort out the issue Document Management Module for the bidder is developed. Bidder uploads common documents once under his document management module. During bidding he just has to link that document with his bid document rather than uploading it once again.

- Library of standard bidding documents manual for buyers.

Solution:

Availability of library of standard bidding documents for a buyers help them on preparing bidding documents more conveniently.

- Simplification on amendment process for buyer.

Solution:

To simplify amendment process there should be provision to amend the bid contract wise rather than tender wise

- Extension of E-bidding portal to allow procurement of service as well

Solution:

System available for E-bidding allows procurement of Work and Good. Hence new module is developed for procuring the services as well. For service two envelop system mechanism is adopted.

Note: Soon all above feature will be made live.

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Miscellaneous issues and solution proposed.

❶ Missing Online payment Mechanism

One of the major reasons to use e-submission in context of Nepal is to sort out problem of muscle power. This force obstructs bidder from purchasing the bid document from Buyer's place. Implementation of E-submission allowed bidder to get bid document online. But yet does not address the situation where muscle power can obstruct bidder from getting bank receipt, which bidder require during E-submission of bid.

Solution

To disallow muscle power to obstruct bidders from getting bank receipt [needed as charge of bid document from bank] its must to integrate online payment system. Integrating this feature as optional tool for bidder to pay charge of bid document via some payment gateway completely stop muscle power from obstructing the bidder.

On existing system, in place where there is option to upload bank voucher, one more option is to be added for online payment. Different payment gateway is available in the country now for this.

This option will be optional. Bidder is open to choose conventional method or online payment based on his comfort.

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● Missing Document Authentication

Bidders in Nepal are yet not very conscious about cyber crimes. Though E-submission system has one step user authentication process but this does not seem enough. Reason is

- At occasions bidder handover their credentials to their support members to submit their bid.
- Use Cyber Centers for bid submission.

This may give spaces to cyber criminals for cyber crimes.

Solution

For document authentication widely adopted solution is Digital Signature. Basis on which Digital Signature operates is called PKI (Public Key Infrastructure). Mode of operation for this PKI is

- Document owner encrypts his document with certain private key. Importance of this private key is without this key document cannot be altered or changed.
- Along with private key, second key is also generated. This is called public key. To make public key as trusted public key some certifying authority need to sign it digitally.
- Public key is send to those to whom document owner has given permission to read. With public key document can only be read.

Our country yet does not have any Certifying authority hence process of making public key to trusted public key is not possible. But alternate models which behave similar as PKI can be thought and implemented.

Similar one model for Existing E-bidding system can be

- Generation of private key for each new bid at the time when bidder click "Bid now" button. This key will be send to bidders email address [or in the web page after querying certain key questions]. Once bidder enters his private key, he is eligible for uploading the documents.
- During bid opening system will send buyer public key [in his email or in the webpage after querying certain question]. To download bid document of a bidder, buyer must have to key public key of that bidder.
- Once buyer download the document he just can read this as document is in pdf format.

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So this alternative model not only allows achieving alternate of digital signature but also enhances system security by disallowing possibilities of cyber crimes.

● Missing of Buyer Work Flow

For the procurement process at Buyer end, in real scenario there is different levels with different role to perform. E.g. Bid document is prepared by one authority, which then passed to higher level authority for verification. But E-submission systems available in Nepal do not have this check balances at Buyer end. There is just one level of Buyer who has privilege to cater all the activities from posting document to publishing it, make amendments, opening and bid awarding.

Solution

E-submission systems available in Nepal can be given simple twist to integrate work flow by defining 2 levels.

- 1st level is used for posting the document. For 1st level buyer publishing of document is not allowed.
- 2nd level checks posted document online. Once he find posted document correct, he has authority to publish the document.

Research on Online E-bidding system and Solutions

To expand the scope of E-bidding system from E-submission stage to next level i.e. E-evaluation to first level, we already have developed online bid submission system which DOR is planning to use on coming future.

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