

PKI in e-Procurement: A Case Study

Centre for Development of Advanced Computing (C-DAC)
Bangalore

Under the Aegis of

Controller of Certifying Authorities (CCA)
Government of India

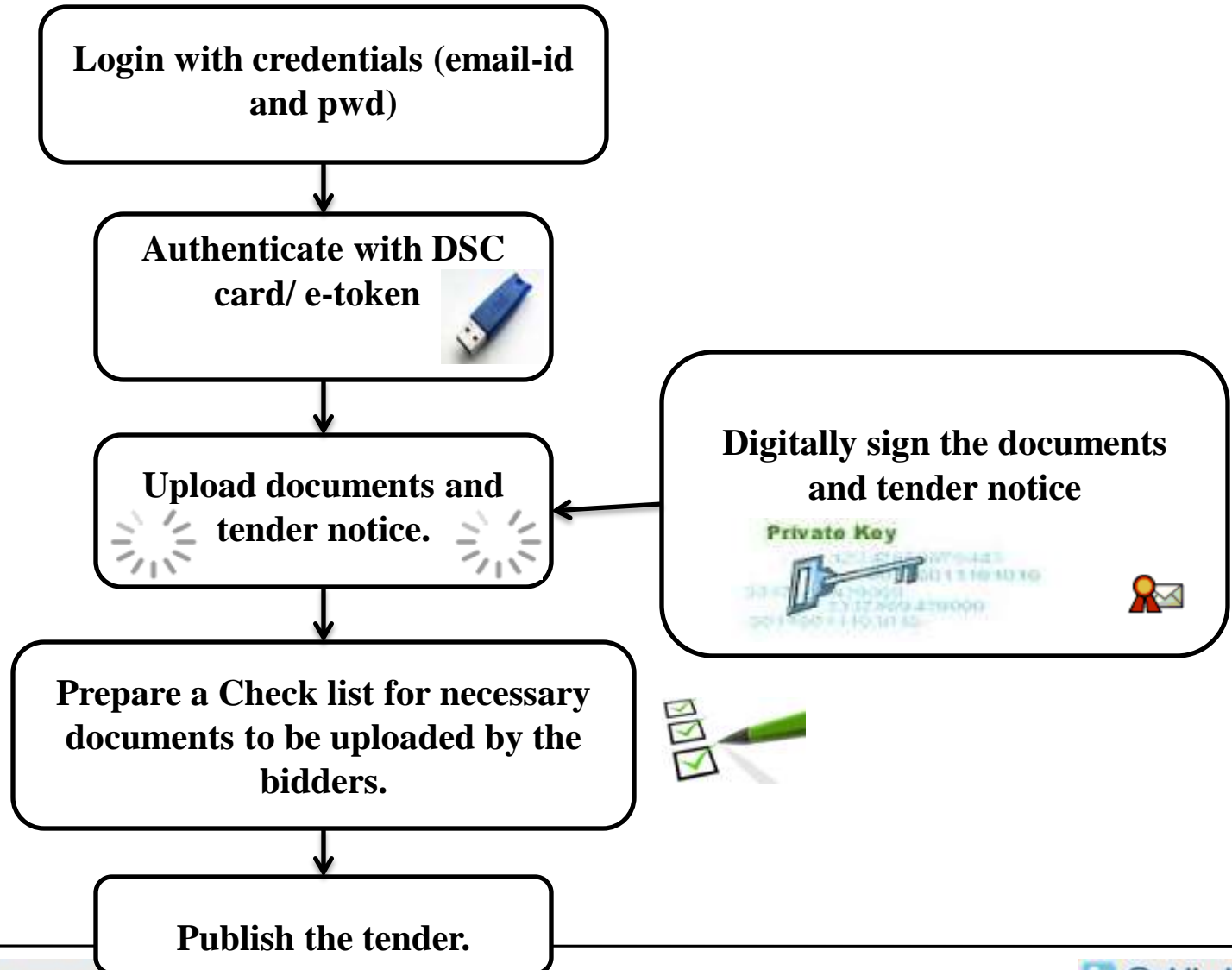


Agenda



- Tender Creation
- Bid Submission
- Bid Opening
- Technical Evaluation
- Financial Evaluation
- Award of Contract

Tender Creation Flow




Tender Creation Flow

WELCOME
PLEASE ENTER USERNAME AND PASSWORD

EMAIL ID :

PASSWORD :

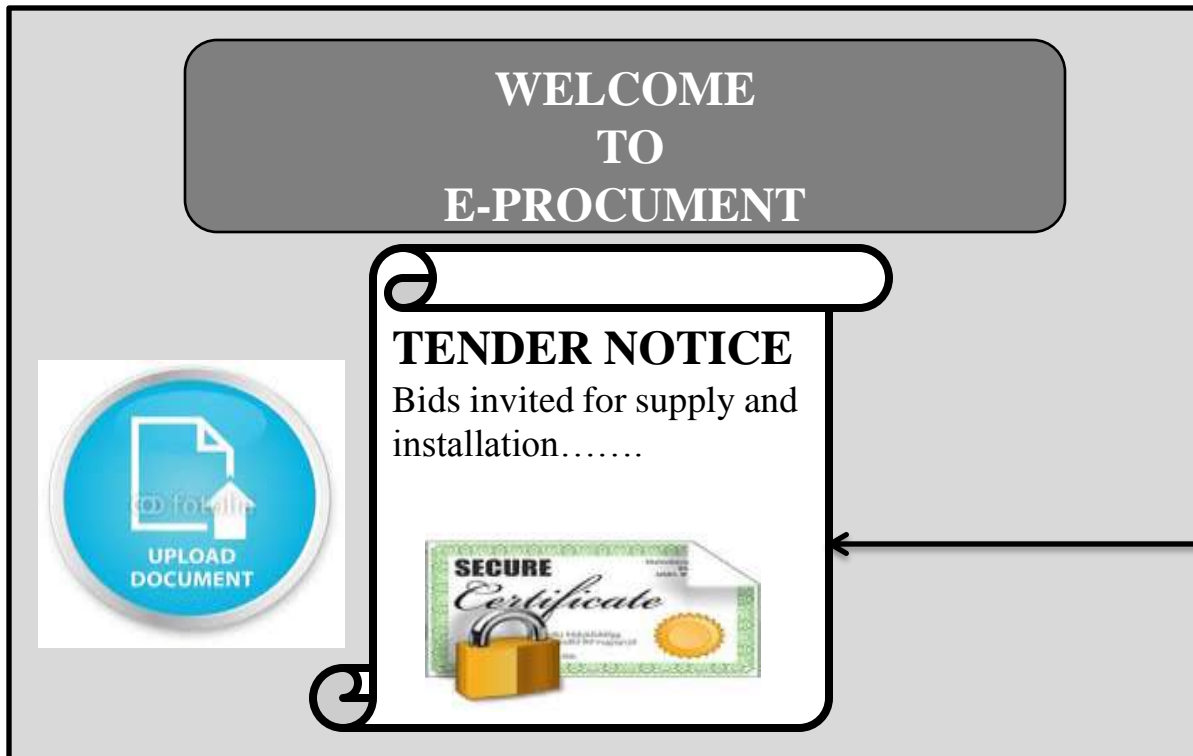
SUBMIT



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TO
E-PROCUREMENT

Authenticate with DSC e-token





WELCOME TO E-PROCUREMENT

Check list for necessary documents to be uploaded by the bidders.



Document for technical specification.



Document for financial specification.



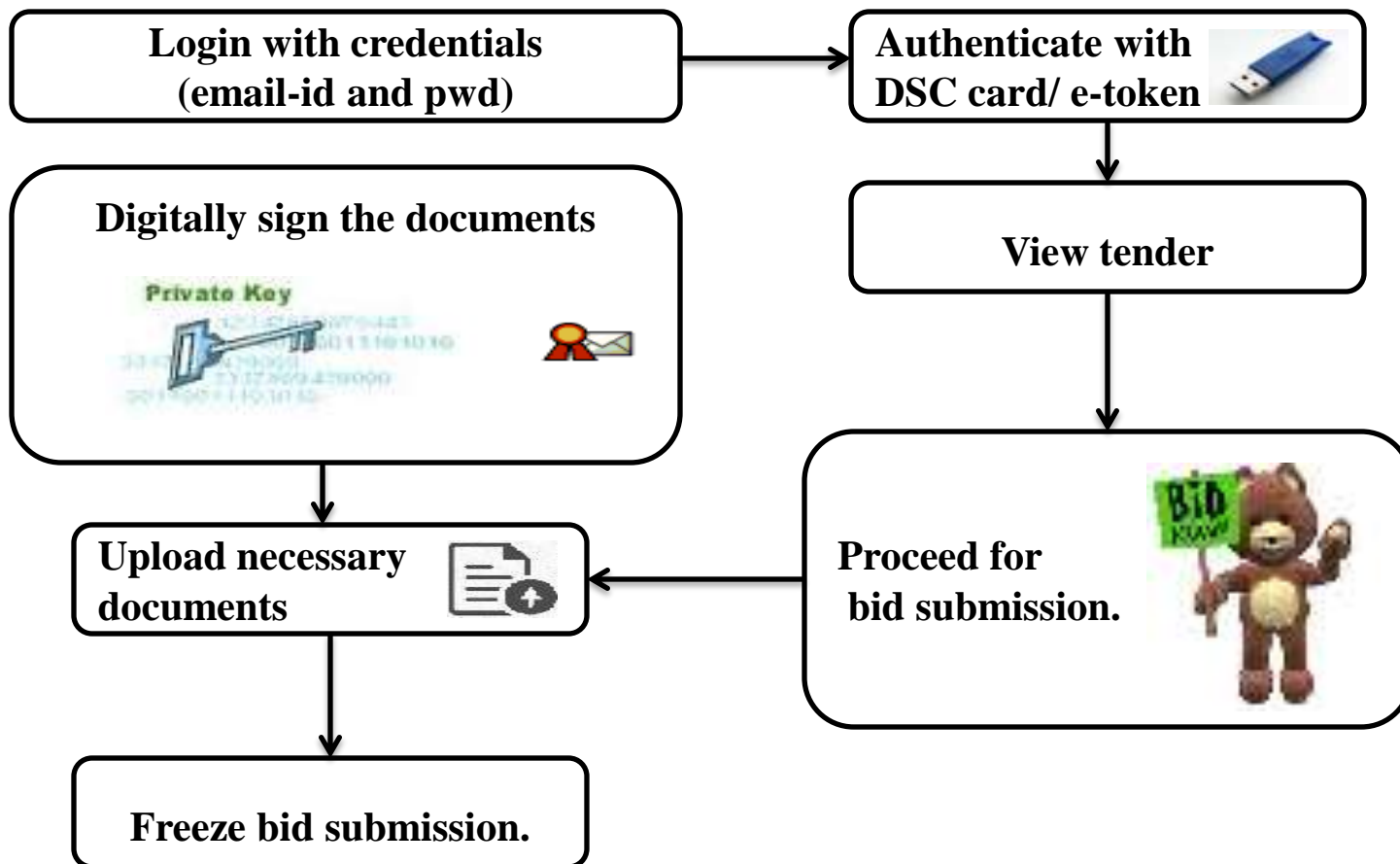
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Notice inviting tender for procurement of item1.

PUBLISH





NOTE: The documents that are uploaded by the bidder are encrypted with tenderer's public key, so that tenderer can only decrypt.



Bid Submission Flow

BIDDER LOGIN

WELCOME

PLEASE ENTER USERNAME AND PASSWORD

EMAIL ID :

bidder@gmail.com

PASSWORD :

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BIDDER AUTHENTICATION

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Bid Submission Flow

BIDDER VIEW TENDER

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Bidder proceeds for bid submission.



Notice invitin



Notice invitin

Document 1

Technical specification:
abcdef
Price:12345

 Digital
Signature

Document 2

Technical specification:
uvwxyz
Price:98765

 Digital
Signature



Bid Submission Flow

BIDDER ENCRYPT THE DOCUMENT

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Bidder encrypt the documents with the public key of the tenderer.

Document 1

Technical
specification:
abcdef
Price:12345

 Digital
Signature



Encrypted
Document
jaskhfIashfk
jfdkjahfwaia
fkjainag



BIDDER SUBMIT TENDER

**WELCOME
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Your bid has been successfully submitted.

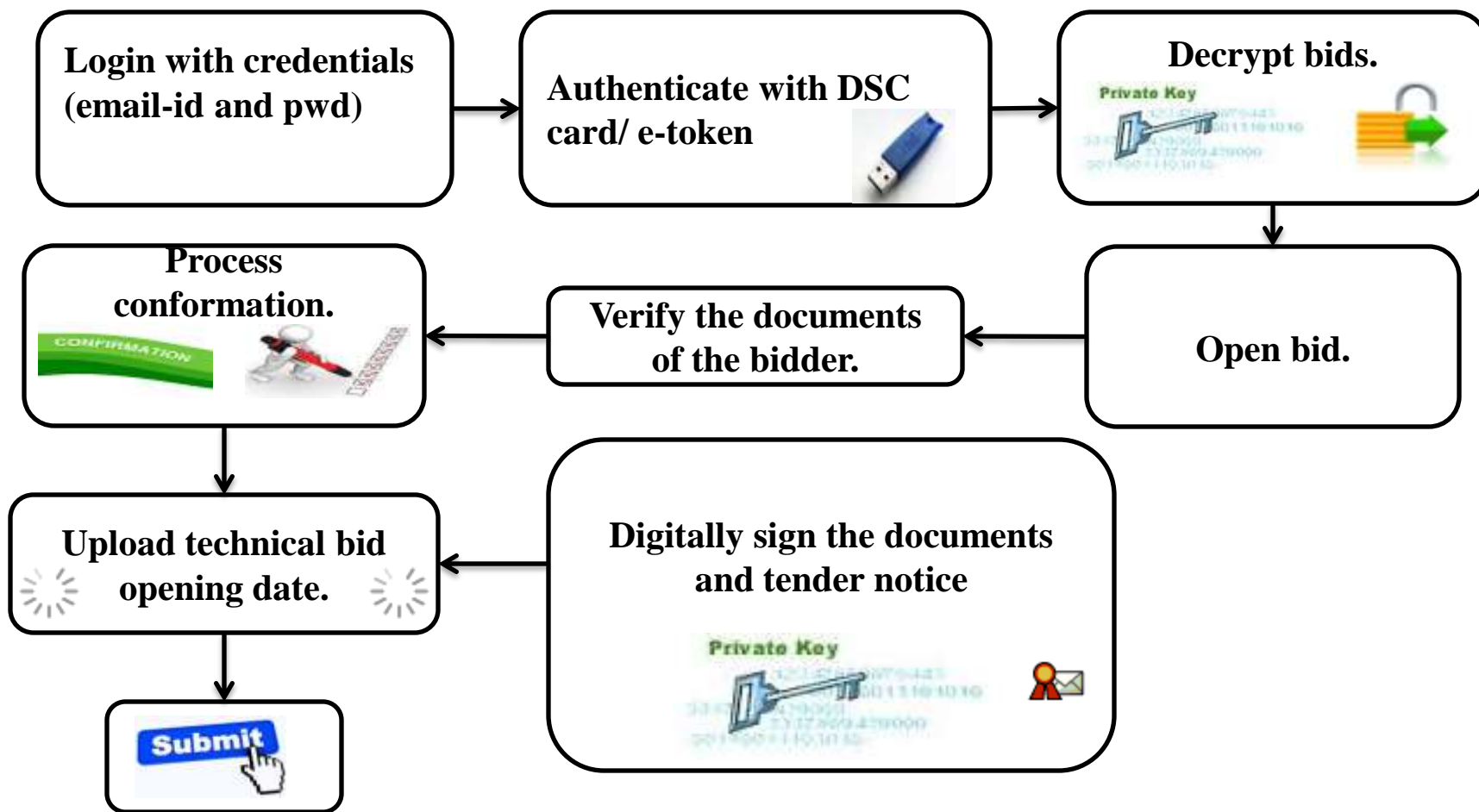
Bidder freezes the bid
and no modification
can be done.



SUBMIT



Tender Bid opening Flow



Tender Bid opening Flow

TENDERER LOGIN

WELCOME

PLEASE ENTER USERNAME AND PASSWORD

EMAIL ID :

tenderer@gmail.com

PASSWORD :

SUBMIT



TENDERER AUTHENTICATION

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Tender Bid opening Flow

TENDERER DECRYPTS AND OPENS BID

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Decrypt the bids that has been submitted by the private key of the tenderer.



Open the bids that has been submitted.

Tender Bid opening Flow

TENDERER VERIFIES DOCUMENTS

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Verification of documents of the bidder.



Document 1
submitted by bidder.



Document 2
submitted by bidder.



Tender Bid opening Flow

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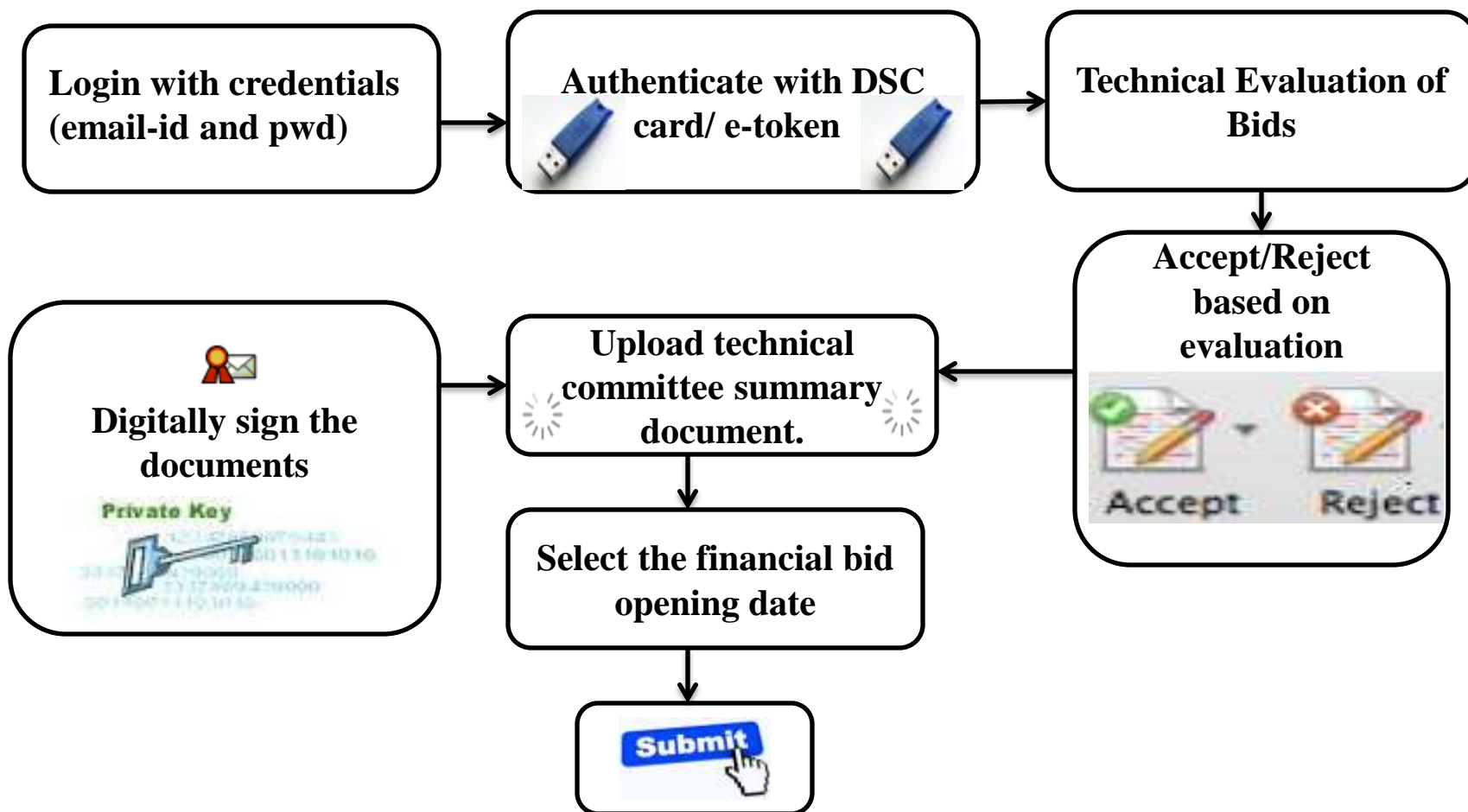
Select the technical bid opening date: 28/04/2015



Technical bid opening date has been uploaded successfully.

SUBMIT





Technical Evaluation flow

TENDERER LOGIN

WELCOME

PLEASE ENTER USERNAME AND PASSWORD

EMAIL ID :

tenderer@gmail.com

PASSWORD :

SUBMIT



TENDERER AUTHENTICATION

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TENDERER EVALUATE BID

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E-PROCUREMENT

Technical evaluation of bids.



Accept or reject the bid.



Technical Evaluation flow

TENDERER ACCEPT OR REJECT BID

**WELCOME
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E-PROCUREMENT**

Technical evaluation of bids.



Accept or reject the bid.



TENDERER UPLOADS SUMMARY

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TECHNICAL
COMMITTEE
SUMMARY
DOCUMENT



Digitally sign the
technical committee
summary document.



QUALIFICATION OF BIDS

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N number of bids are received. Among the received bids **X** number of bids qualify for next round.

- Quotation from bidder 1.
- Quotation from bidder 2.
- Quotation from bidder 3.
- ⋮
- Quotation from bidder 4.
- Quotation from bidder 5.

TENDERER SUBMITS SUMMARY

**WELCOME
TO
E-PROCUREMENT**

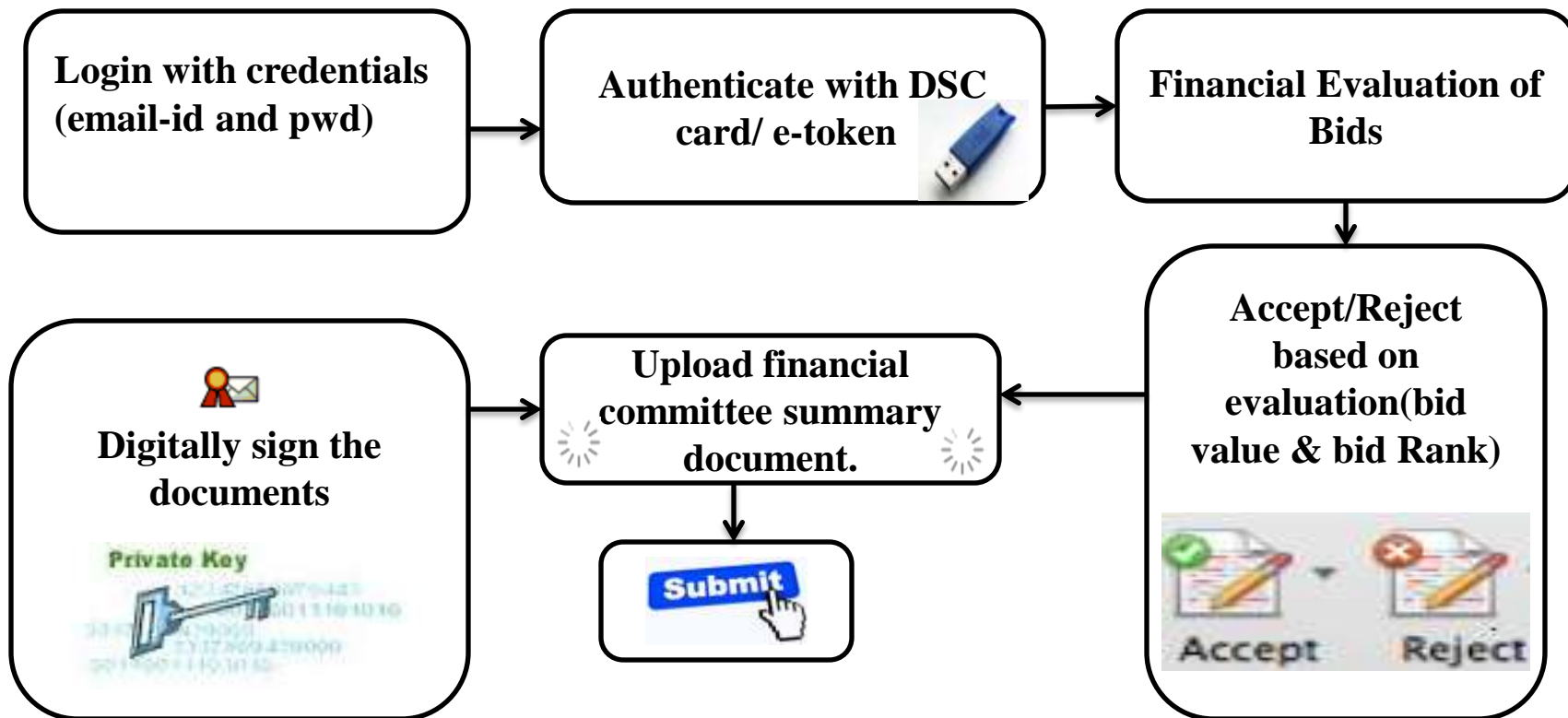
Select the financial bid opening date: 30/04/2015

Financial bid opening date has been uploaded successfully.

SUBMIT



Financial Evaluation flow



TENDERER LOGIN

WELCOME

PLEASE ENTER USERNAME AND PASSWORD

EMAIL ID :

tenderer@gmail.com

PASSWORD :

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TENDERER AUTHENTICATION

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Financial Evaluation flow

TENDERER EVALUATE BID

WELCOME
TO
E-PROCUREMENT

Financial evaluation of bids.



Accept or reject the bid.



Financial Evaluation flow

TENDERER ACCEPT OR REJECT BID

**WELCOME
TO
E-PROCUREMENT**

Financial evaluation of bids.



Accept or reject the bid.



TENDERER UPLOADS SUMMARY

WELCOME
TO
E-PROCUREMENT



FINANCIAL
COMMITTEE
SUMMARY
DOCUMENT



Digitally sign the
financial committee
summary document.

Digital Signature
Certificate



TENDERER SORTS THE BIDS

WELCOME TO E-PROCUREMENT

Tenderer sorts the bids based on the quote value.



1. Quotation from bidder2 of value Rs.20000.
2. Quotation from bidder1 of value Rs.22000.
3. Quotation from bidder3 of value Rs.23000.

TENDERER SUBMITS SUMMARY

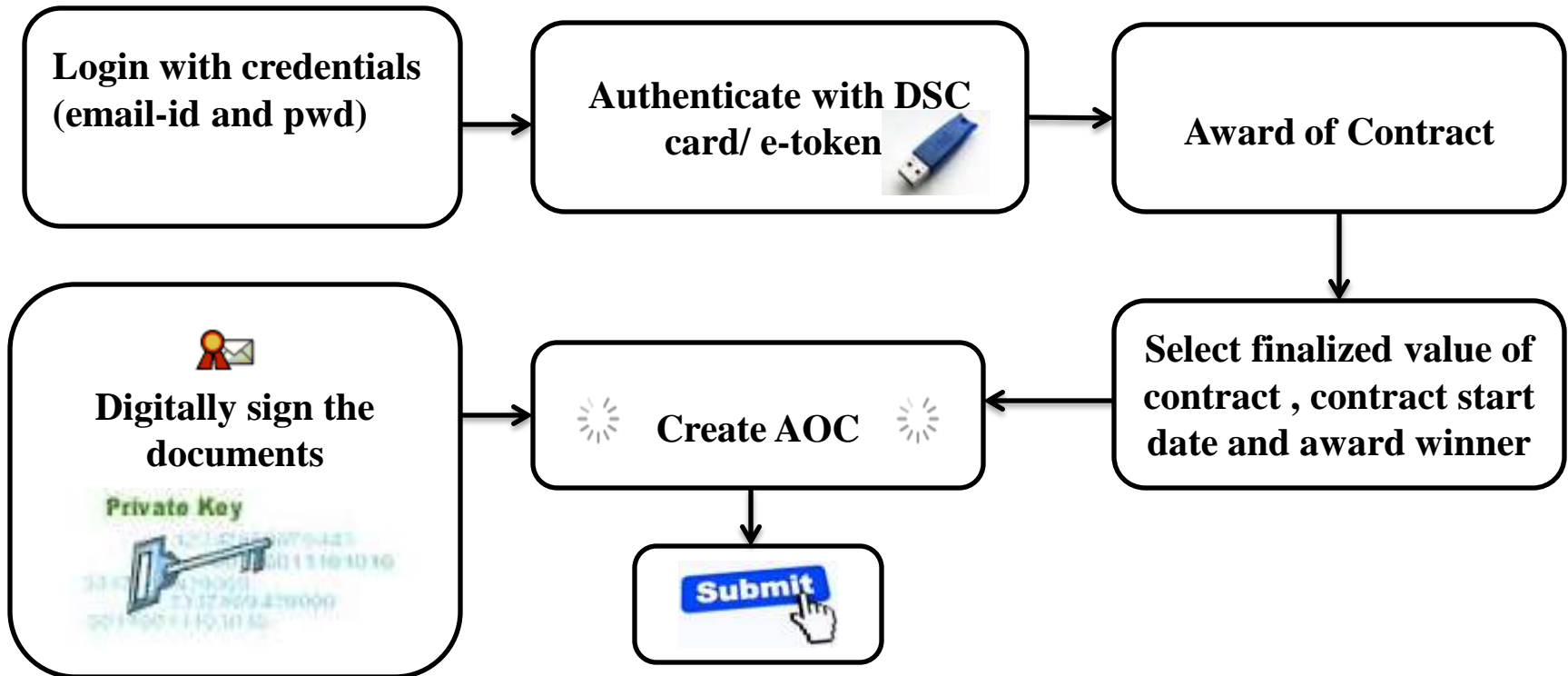
**WELCOME
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Financial committee summary document been uploaded successfully.

SUBMIT



Award of Contract (AOC) flow





Award of Contract



TENDERER LOGIN

WELCOME

PLEASE ENTER USERNAME AND PASSWORD

EMAIL ID :

tenderer@gmail.com

PASSWORD :

SUBMIT



TENDERER AUTHENTICATION

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AWARD OF CONTRACT

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AWARD OF CONTRACT

Value of contract: 20000

Contract start date: 25/04/2015

Contract award winner: XYZ
Pvt. Ltd



Award of Contract



TENDERER CREATE AOC

**WELCOME
TO
E-PROCUREMENT**

Create Award Of Contract(AOC)



AWARD OF CONTRACT

Contract of the tender is
given to XYZ Pvt. Ltd



**Digitally sign
the award of
contract.**



TENDERER UPLOADS NOTICE

**WELCOME
TO
E-PROCUREMENT**



The contract has been given to XYZ Pvt. Ltd..

SUBMIT





Thank You

pki@cdac.in