



Indian Banks' Association
&
Institute for Development and Research in Banking
Technology



Technical Document III

Specification
For
Bank Terminals
(Ver.1.2)

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Minimal Hardware Requirements

1. Smart Card Readers

The terminal may have one or more card readers. Each card reader should conform to the appropriate ISO standard:

- Contact - ISO 7816
- Contactless - ISO 14443 (Type A and Type B)

2. Mutual authentication between terminal and card should be ensured.

3. Speaker

- Voice Guidance in local language of instructions and status information.

4. Fingerprint Sensor

- ISO 19794 compliant

5. Printer

- Should be able to print receipts in local languages

6. Storage –

- RAM (Minimum 4 MB)
- Flash Memory

7. Power Backup

- Minimum 4 hours battery back up for 4 hours operation
- 24 hours standby
- Provisioning for charging from motorcycle/car batteries or any other alternates

8. Connectivity (At least one these as per local requirement)

- GSM/CDMA
- Ethernet
- PSTN

BANK TERMINALS

BEST PRACTICES

Display

- 128 x 64 pixels
- Number of lines - 8 lines
- Gray Scale
- Color (optional)

Sensor

- Optical/Capacitive/Spectral
- Image size should be at least 250 X 300 pixels

Storage Recommended

- 256 MB RAM expandable to 1 GB
- 256 MB storage expandable to 8 GB (Flash Memory)

Security Aspects

- Once the application is loaded on the device there should be no possibilities to modify the application at the field. Reloading or modifying of application should be possible only by an authorized agency or the bank.
- Fingerprint matching (1:1) – Fingerprint image shall be captured live which shall be matched with fingerprint stored in the card. Matching algorithm can be implemented by the manufacturers with high level of accuracy.
- Connectivity of terminal to backend protected through SSL/PKI
- The terminal will have provision for a SAM card. The flash memory can be used for storing BOD file, data downloaded from back end, transaction data etc. in an encrypted form. SAM is for authentication and not storage.

Software Functionality – Indicative Flow

Insert BC card
Mutual Authentication (BC – Terminal)
BC Fingerprint verification
Choose Offline/Online (mode of connectivity)
If (online)
 BOD
End if
Application Main Menu
If (Customer Service)
While (customer)
 Insert Customer Card
 Mutual Authentication (Customer – Terminal)
 Customer Fingerprint verification
 Application Menu – Customer Service
 Choose Option in the menu
 Enter details
 Voice prompt
 Complete Transaction
 Card Update
 Update Transaction details on the Terminal (SAM, Flash &
BC Card)
 Print Transaction Details
 Check for controls
End while (Customer)
End if (Customer Service)
If (online & end of day/ interim data upload)
 EOD / Interim Data Upload/Print interim report
End if

MAIN MENU OPTIONS

ADMIN FUNCTION
BOD
EOD
INTERMEDIATE DATA UPLOAD
CUSTOMER SERVICE
 DEPOSIT
 WITHDRAWAL
 BALANCE ENQUIRY
 MINI STATEMENT
INTERIM REPORT PRINT