

## Typical ATM Deployment & post-deployment practices for RRBs and Cooperative banks.

Many RRBs and cooperative banks can now deploy ATMs viably, with Vortex Gramateller and Lobbyteller. This can be deployed irrespective of whether they are on TBA or CBS.

This whitepaper discusses the various activities and practices that are normally required in deploying and managing an ATM network, for banks on TBA. Though the practices are quite similar on CBS network, the hardware, software and items required may change slightly

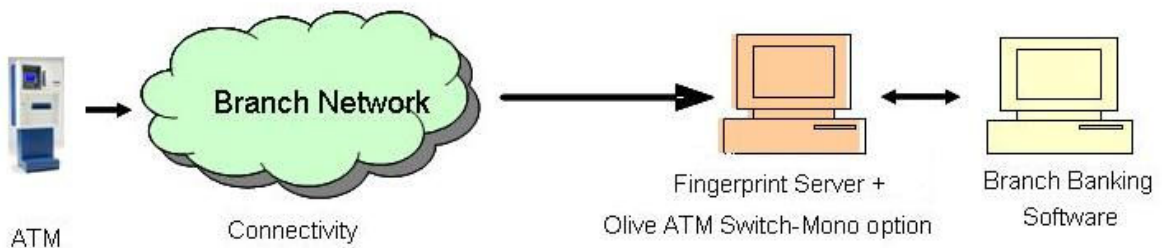
### ATM Deployment

The first step is obviously is to decide on an ATM. Though there are various models and brands available, the banks may have to choose the ATM keeping their requirements in mind. Vortex ATMs are specifically designed for the semi urban and rural markets, where frequent power cuts are the order of the day. Vortex is uniquely designed in such a way that it is cost-effective even in the low transaction rate in the rural sector. The power consumption is so low that it can be viably operated with solar power. Its patented cash dispensing mechanism can handle even soiled notes. Thus Vortex ATMs offer a total and cost effective solution for the rural and semi-urban sectors.

To be able to provide typical ATM services, some additional hardware and software is needed - ATM Switch interface software, LAN connectivity, Magnetic cards, Fingerprint Authentication Software (optional), room for ATM etc. Some are absolutely essential; some are optional based on specific requirements.

One license of the ATM Switch software is required for every branch where an ATM is installed. The ATM connects to the ATM Interface Software which then interfaces with the Bank Branch Automation Software. A server class PC with Windows Operating System is required for installing this software. The required hardware can be supplied by the current hardware vendor of the bank.

### Typical Connection Diagram



Fingerprint Server (FP Server) is required for the Gramateller ATMs. This software is used for authentication using fingerprints of the customers. This software can be installed in a shared mode on the server computer running the ATM switch software. This is not required for Lobbyteller ATMs or when fingerprint authentication is not needed.

The ATM and the PC running the FP Server software and ATM Switch software needs to be connected to the bank LAN network if the ATM is within the premises of the bank branch. Please ensure that at least 2 ports are free for this purpose in the existing Ethernet Switch of the bank LAN network.

If the ATM needs to be accessible to customers 24 x 7 then a separate room may be required for housing the ATM. The minimum size of room required for Vortex ATM is 4' X 7'. However a larger



room may be provided for more convenience to customer. The room can be built through local civil contractors. The ATM does NOT need air-conditioning. Also, since it consumes only very little power, it does not need any special electrical wiring - it requires only one 5A socket.

The physical installation of the ATM involves grouting the ATM to wall, and doing the final end-to-end test. This will be done by Vortex.

The ATM Switch software requires to communicate with the TBA software. There are only about 4 transactions (balance enquiry, mini statement, cash withdrawal and cash withdrawal reversal) that are required to be communicated between the ATM Switch & TBA software. The ATM Switch software has a defined interface document for this purpose. This interface has to be developed in the TBA by the TBA software vendor and will typically take one week to develop. Then an additional week may be required for testing this interface together by Vortex and the TBA software vendor. This interface is already available on all leading TBA software and so in most cases there may not be any additional work involved.

### **Additional pre-deployment activities**

**Card issuance:** ATM cards should be issued to all customers to use the ATM. ATM cards are magnetic cards with the bank name & logo, card number, customer name and expiry date embossed/ printed on it. Most of this information is also written on the magnetic strip in ISO format.

Vortex has compiled a list of leading vendors who provide card services to banks. This helps the banks to easily identify a vendor to issue cards. Alternatively the banks can identify a card vendor themselves. The card vendors will need from the bank a database of card numbers, customer name and expiry date to prepare the cards. Vortex can help the banks by providing a template file for this information in MS Excel format. Normally the card vendors securely generate PIN numbers for each card and update the card database as well as create PIN envelopes and send it back to the bank. Alternatively the banks can generate PIN numbers and map it to the card numbers and upload the card database suitably and also generate PIN envelopes for the customers. PIN information should be securely handled.

### **Post Deployment**

While adding the ATM services to customers, most banks bring in a set of practices to ensure smooth roll-out and proper running - like creating additional ledger entries for ATM management , creating procedures for Card Management, Cash Management , customer conflict resolution and ATM journal backup . These procedures are outlined in the next few paragraphs.

#### **Cash Management**

Banks typically create additional ledger accounts for ATM transactions in the TBA software - creating two separate accounts called ATM account and ATM Suspense account.

Whenever the ATM is loaded with cash, an entry is passed debiting this amount from the ATM account. Whenever money is withdrawn from a customer account through ATMs, the ATM account is automatically credited and the customer account is debited for the amount withdrawn. At any point the physical cash in the ATM will tally with the amount in the ATM account. Initially this tallying process can be done every alternate day, and once the process is streamlined, it can be done less often, say, every time cash is loaded in to the ATM.



After the customer has given a request for cash withdrawal in the ATM, the customer account is debited (and ATM account credited) BEFORE the cash is presented to the customer in the ATM., However, in case the ATM detects any internal fault after the customer account is debited, and could not dispense cash, the ATM reverses the transaction by crediting the customer account and debiting back the ATM account.

### **Suspicious Transaction Management**

ATMs are configured to retract the notes presented, back into the ATM if they are not collected within a predefined period, say 30 seconds. The cash thus retracted is stored in Retract bin within the ATM. However there is no guarantee that all the notes have been retracted back, since the customer may have held a partial set of notes presented. Hence when such a retract happens, it does not result in crediting the customer account back, but this amount is credited back to the ATM Suspense account.

When such an event happens, there should be excess physical cash inside the ATM compared to the ATM account, and this excess may match with the amount in ATM Suspense account. This excess cash can be given back to the customer when he approaches the bank. .

Vortex ATMs can also be configured not to retract the notes when not collected, if desired by the banks.

### **Journals for ATM transactions**

Banks offering ATM services maintain journal records of all transactions made through ATMs for resolving any client issue regarding ATM transactions. Typical ATMs keep a printed record of each transaction which is collected and stored by banks.

These printed journals have two major vulnerabilities. One, they contain confidential information of transactions of clients, and these printouts have to be securely stored so that they are not read by bank personnel who do not have the authority to access them. When the bulk of these printouts increase, it creates space constraints for the banks. Two, there could be loss of specific journal printouts due to carelessness or fraud and this may result in banks becoming liable on a customer issue.

Vortex ATMs overcome these limitations with their innovative electronic journals. Instead of printing all journal entries inside the ATM, it stores them in non-volatile memory in the ATM that is uploaded periodically by the ATM Switch. This ensures that all Journal data is available and stored in the ATM Switch providing reliable saving and permanent electronic access to print them as and when required. Additionally, they save on paper costs and are hence eco friendly and cost effective.

### **Card Management**

The banks will have to upload the card database sent to the card vendor along with the mapping account information to the Card Management System of the ATM Switch software. This will have to be done once initially for all the cards issued to the customer and later on a case by case basis for all new cards issued. The ATM Switch software stores the PIN numbers in an encrypted form and so is secure once loaded to the ATM Switch software. In case of lost/forgotten PIN, authorized bank personnel can reassign PIN by updating the database.



### **FP registration**

Finger print authentication requires a one-time finger print registration to be performed by user in the presence of bank authorized personnel. The authorized bank officer uses an “Admin” card for this purpose.

### **Conclusion**

These are steps and processes involved in a comprehensive ATM deployment and management. With Vortex, you can ensure a hassle free roll out of ATM services to your customers as you receive guidance at every step.

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