

# Closed Loop Cashless Solution For Banks

*Presented by*

**Arvind Mehta**

Head of Cashless Payment Solutions Group



**AVI INFOSYS** L.L.C  
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Define, Design and Delivers Innovation  
Industry Experience and Proven Goals.

# About AVI INFOSYS LLC



**AVI INFOSYS L.L.C**  
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- Founded in UAE in Year- 2007
- A Leading Solution Provider for Prepaid cashless and Loyalty card solutions using Embedded Internet based Appliances with Human Interfaces
  - **12,000** Plus Customers in Middle East and Africa for multiple solutions provided by Group.
  - **6** Dedicated cashless payment professional IT Consultants in UAE
  - Corporate and Technical Support offices in UAE
  - Patented technology – **Offline/Online/Hybrid** payment systems
  - Over **900** resellers in 100 Plus countries
  - Field proven and extensive experience on mission critical digital transactions
  - Headquartered in Hong Kong with offices in India, Ireland, Bahrain
  - Ability to mobilize trained professionals from India, Hong Kong and UAE in **2-3 days** time based on project requirements

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Authorized **Global Master Distributors** for

**iBONUS** SMARTCARD SYSTEM

[info@avi-infosys.com](mailto:info@avi-infosys.com)



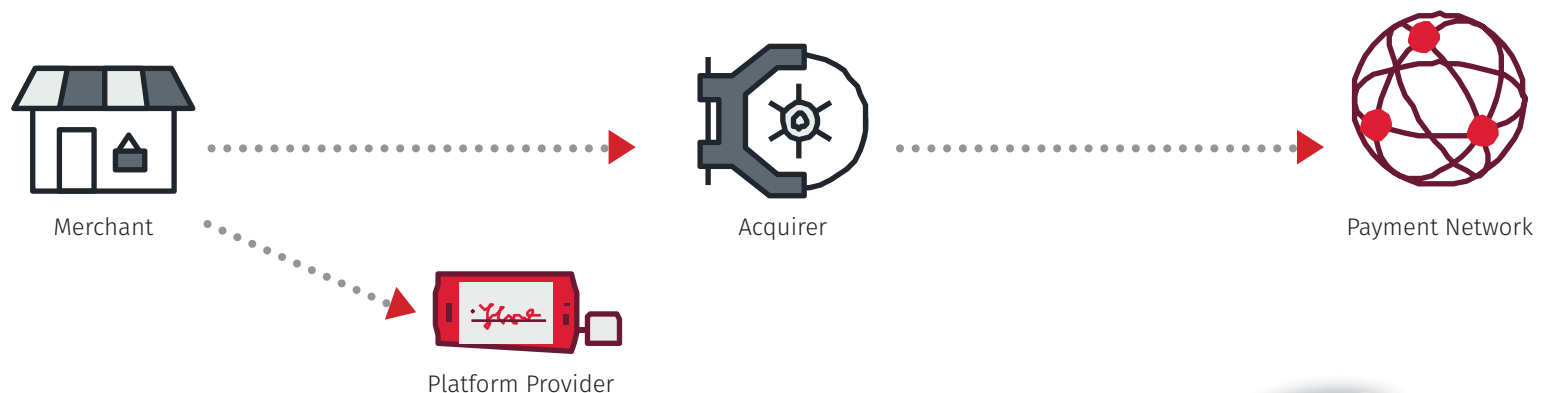
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# Platform Provider

A Mobile POS provider who supplies a hardware and/or software solution and sells the platform to an acquirer, ISO or other party that distributes the solution and owns the merchant relationship.

## Operating Model

- ▶ Acquirer owns merchant relationship directly
- ▶ Acquirer sources white label Mobile POS solution (hardware and/or software) from the platform provider
- ▶ Acquirer can brand the Mobile POS solution in their corporate colors and their logo
- ▶ Acquirer is responsible for marketing, sales, onboarding, risk management and support activities
- ▶ Acquirer settles funds to each merchant individually



# Who is using iBonus Prepaid Cashless



[info@avi-infosys.com](mailto:info@avi-infosys.com)



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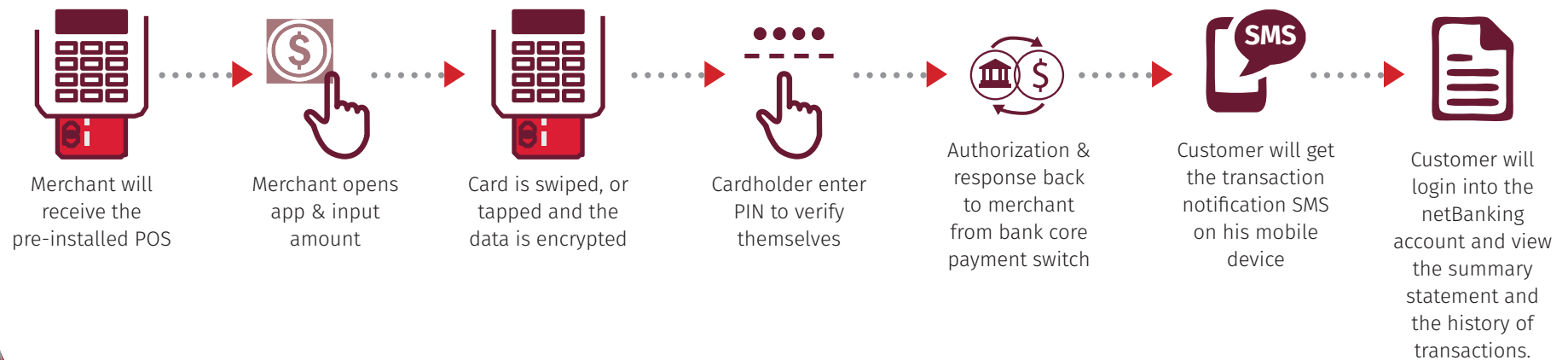
# An investment into the future

Overall, Mobile POS solutions result in lower cost of ownership than traditional, purpose-built POS terminals, but the investment required will still vary. Mobile POS solutions with fewer card input or cardholder verification capabilities may cost less in the short-term, but a one-time upfront investment may sustain the solution farther into the future. It is important to choose the solution that meets your needs for the long term.

Mobile POS card reader accessories are typically lower-cost, easy-to-deploy readers and contactless cards capable of performing NFC-contactless transactions with PIN verification.

Customers will get the transactional SMS on their mobile devices.

Customer can login into net Banking and view the statement and transaction history.



# Creating an attractive package for merchants

Acquirers need to think about how to physically package their Mobile POS solution to make the value proposition attractive to merchants.

Packaging refers to the look, feel and form factor of how the Mobile POS solution is delivered to the merchant. It should include consistent branding and the key messages of your marketing strategy right on the “box.”

Bundling the Mobile POS solution with other products through partnerships can add great value for certain small- and medium-sized enterprises.



## **EXAMPLE 1**

**The acquirer partners with a platform provider** to package and distribute a white label solution under the acquirer's brand. In this situation, the acquirer would own the merchant relationship directly and would leverage the hardware and/or software from the platform provider.

## **EXAMPLE 2**

**The acquirer partners with an issuer** who distributes the Mobile POS solution through their own branch network. The issuer may also provide a companion card alongside the Mobile POS solution to form a bundle that allows merchants to both accept card payments and begin using cards themselves.

## **EXAMPLE 3**

**The acquirer partners with a Mobile Network Operator (MNO)** to include a tablet along with the Mobile POS solution. This serves as a complete solution, giving the merchant everything they need to immediately start accepting card payments.



# Mobile POS Solution Components

Before selling a Mobile POS solution, think about how to get the solution into the hands of merchants. Payment facilitators will likely have their own distribution strategy.

- Acquirer-owned solutions will require a distribution strategy

For the distribution of the Mobile POS card reader it is possible to utilize the following channels:

## BRANCH

New merchants pick up a Mobile POS card reader from a bank branch.

- Benefit: Merchants feel comfortable picking up the card reader from a trusted bank's branch.
- Challenge: Merchants may find it inconvenient to have to visit the bank branch.

## MAIL DELIVERY

Merchants who have registered for the solution and are approved will have the Mobile POS card reader sent to their home or business address through the mail or courier.

- Benefit: Reduces costs and eliminates the need for display and retail counter space as the card reader is shipped from a warehouse.
- Challenge: Requires the logistics of warehousing and delivery.

## RETAIL PARTNER

New merchants pick up a Mobile POS card reader from a retail partner.

- Benefit: Retailers have more footfall compared to bank branches.
- Challenge: Space within retail environment is costly and retailer sales staff may be incentivized to sell other products.

## SALES AGENTS

When a sales force is used to recruit merchants, sales agents can hand over the Mobile POS card reader directly to the merchants after a successful sales call.

- Benefit: Personalized approach allows agents to deliver basic training at the moment of delivery.
- Challenge: More expensive and not as time-efficient as the other options.

It is important to consider which option works best for the type of market and merchant being targeted.



### MOBILE -POS

Merchant-owned or provided by acquirer or MNO partner as part of a package



### APPLICATION ON DEVICE

Made available for download by acquirer



### MOBILE POS CARD READER

Distributed by acquirer via branch, mail or retail partner



# Driving Activation And Usage

## Motivating merchant activation and usage

Once merchants understand the registration and signup process it is time to get tactical. Merchants should have clear objectives, know the steps to activation and understand the benefits of continued usage.

It is important to encourage the merchant to set up and start using the Mobile POS device as soon as possible, and regularly, so they become comfortable with the process.

If a merchant has employees, then it is important that they offer sufficient training to their staff so that they know when to use the Mobile POS solution and are comfortable checking out customers. A successful Mobile POS deployment relies on merchants using their solution and not leaving it behind the counter so buy-in from staff is imperative.

Develop a system for tracking whether the Mobile POS solutions are being used, and if not, be sure to find out why. Follow up directly with merchants who are not activating the Mobile POS solution and find ways to remove the obstacles.

Upon activation, consider developing monthly, quarterly or bi-annual campaigns that encourage ongoing usage and that incentivize merchants to continue using the Mobile POS solution.

### CONSIDER INCENTIVIZING ACTIVATION AND USAGE BY:

- Reducing fees for an initial period (for example, during the first two weeks)
- Reducing fees for the first three months if merchants reach a prescribed number of transactions
- Providing entry into a prize drawing if merchants complete a certain number of transactions within a short time period (for example, ten transactions within seven days); prizes could include credit towards future transaction fees, or a contribution to support the merchant's marketing and promotional efforts

# WHY AVI INFOSYS L.L.C.

## Moving closer to a world beyond cash

Mobile Point-of-Sale is a primary driver to make AVI's vision of a world beyond cash a reality.

- ▶ A wide range of merchants, including small businesses, large retailers and field agents are turning to Mobile POS solutions to increase sales and broaden their customer base.
- ▶ AVI is able to share insights from several global Mobile POS launches and provide expertise and advice on how to create a successful merchant growth strategy.
- ▶ We introduced an industry-first POS Program to ensure safe, simple and smart transactions when consumers use their debit, and prepaid cards. Our goal is to enable a wide variety of solutions, ensuring strong competition in the POS market by delivering the right solutions and partners for our valued customers.



# Challenges For Prepaid Card Projects For Mass Deployment

- ▶ Installation, Roll out and Maintenance
- ▶ Turn around end to end deployment time
- ▶ Centralized control issues for card management
- ▶ Network Infrastructure Stability
- ▶ POS Hardware and Database Security
- ▶ Data Safety and integrity
- ▶ Anti Fraud Features
- ▶ Smartcard Encryption
- ▶ End to End Communication Protocol
- ▶ Cashless Project CAPEX and OPEX budget planning



# Next GenX NFC Loyalty/Cashless Payment Smartcard Technology



iBonus Limited has been working with contactless smart card Cashless prepaid payment and loyalty system since 2001. It's field proven, secure platform with standalone terminal and server software has been a great success. The iBonus team brings the most easily managed NFC payment and bonus point system to an Android platform and now you can use your NFC ready tablet as a terminal to deploy your own loyalty programs or Prepaid Cashless Systems.



[info@avi-infosys.com](mailto:info@avi-infosys.com)



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# Project Objective

- ▶ To centralize and standardized cost-effective POS acquiring solution for acquiring banks and issuers.
- ▶ To develop and support communication from and to bank's core payment switch and with CMS (Card management software).
- ▶ To develop ISO 8583 communication messaging between CMS and the payment switch.
- ▶ To enable quick turn around time to have accessibility and transparency for centralized Multi Merchant prepaid cashless Management System using banks prepaid/debit card and various statistical reports and controls.
- ▶ End to End Encryption (TLS 1.2) along with certified POS hardware terminals.
- ▶ To provide quick on demand Reports for Prepaid cash management & reporting for faster billing purposes for Merchants monthly payment settlements.
- ▶ End to End Encryption (TLS 1.2) along with PCI-DSS certified POS hardware terminals.

# Proposed Prepaid Card Management System

## Proper management of cash transactions within merchant locations

- ▶ Strong backend prepaid capture database Engine fully integrated with core banking Primary Database.
- ▶ End to End Encryption (TLS 1.2) along with PCI-DSS certified POS hardware terminals.
- ▶ To provide quick on-demand Reports for Prepaid cash management & reporting for faster billing purposes for Merchants monthly payment settlements.

## Manage merchant Prepaid card transactions:

- ▶ Ensures as many merchant locations as required for quick activation and out of box rapid deployment .
- ▶ User friendly system facilitating quick & efficient operation.
- ▶ Merchant's Monthly settlement reports



# Additional Features Of Backend Reporting Tools

## Department wise access for online reporting:

- ▶ Advanced online reporting module with role based access for all departments like IT, Administration, Finance , Merchants etc.
- ▶ Finance to have audit ready reports on demand any time.
- ▶ Admin module to control cards activation, blacklisting bank pre-paid/debit cards & online terminal monitoring.

## Receipt printing on Purchase transactions:

- ▶ Thermal Receipt printers are built in on POS terminals itself for. Printing official transactional receipts.



# What Is iBonus System ?



- ▶ Contactless smart card Prepaid payment system.
- ▶ Complete solution with standard solution transaction set allows instant mass deployment.
- ▶ Values stored in card, thus requires neither a real time network nor a powerful backend server to operate.
- ▶ Both Online/Offline modules are ready for mass deployment anytime anywhere.

# The Four Elements

## iBonus Secured POS Terminal

- ▶ Scalable, every Terminal can carry out any transaction.



## Reports

- ▶ Reports will be hosted on your bank's internal web server.
- ▶ Can be checked globally anytime maintaining transparency.



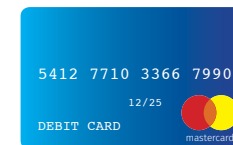
## iBonus Cashless Server Engine

- ▶ Provide ISO communication between CMS software and core banking switch.
- ▶ Provide authorization and reversals



## Debit card

- ▶ Debit cards



# About Secured Cashless POS terminal

- ▶ Processor High speed quad core CPU
- ▶ NFC Card Reader ISO7816 compliance, PBOC3.0 and EMV level 1&2 certified Operating System Android 5.X base secure payment system

## Industry Certifications :

- ▶ CCC
- ▶ China Union Pay Certification
- ▶ Use of Mobile Network Certification (China)
- ▶ PBOC 3.0 Level 1&2
- ▶ PayPass
- ▶ PayWave
- ▶ PCI PTS 4.x



# How Would It Operate ?

- ▶ The bank debit cards can be topped-up with prepaid Balances from any available Bank CDM machines and also from tellers in the banks' locations within the country.
- ▶ Daily Card operations using Existing Bank Debit cards
  - Add Prepaid value from bank's CDM
  - Purchase at appointed merchant Shops
  - Reversal/sales return anywhere

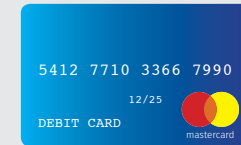


# How Would It Operate ?

## Top - UP



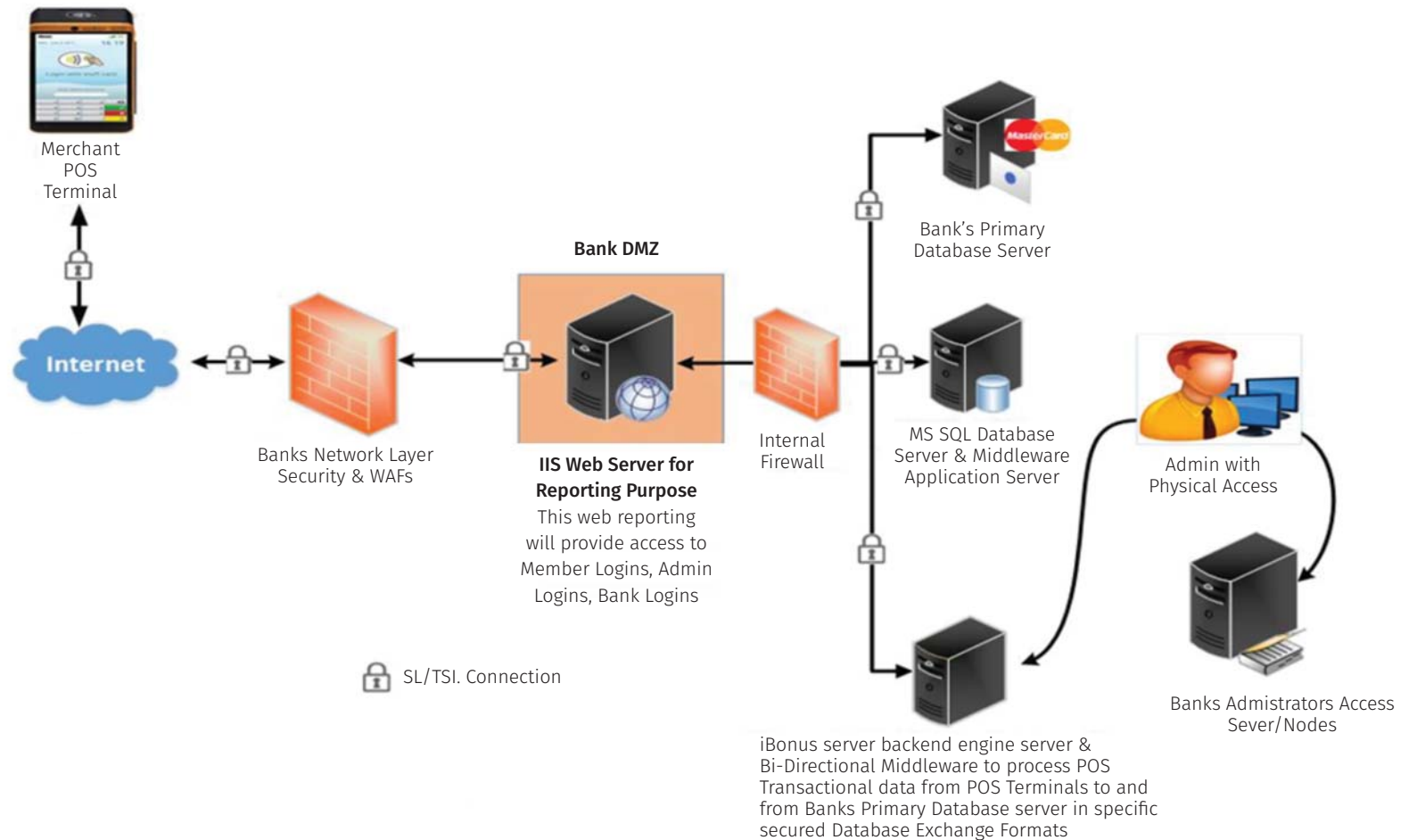
Bank's debit card can be topped-up with prepaid balances from any available Bank CDM machines and also from tellers in the banks' locations within country.



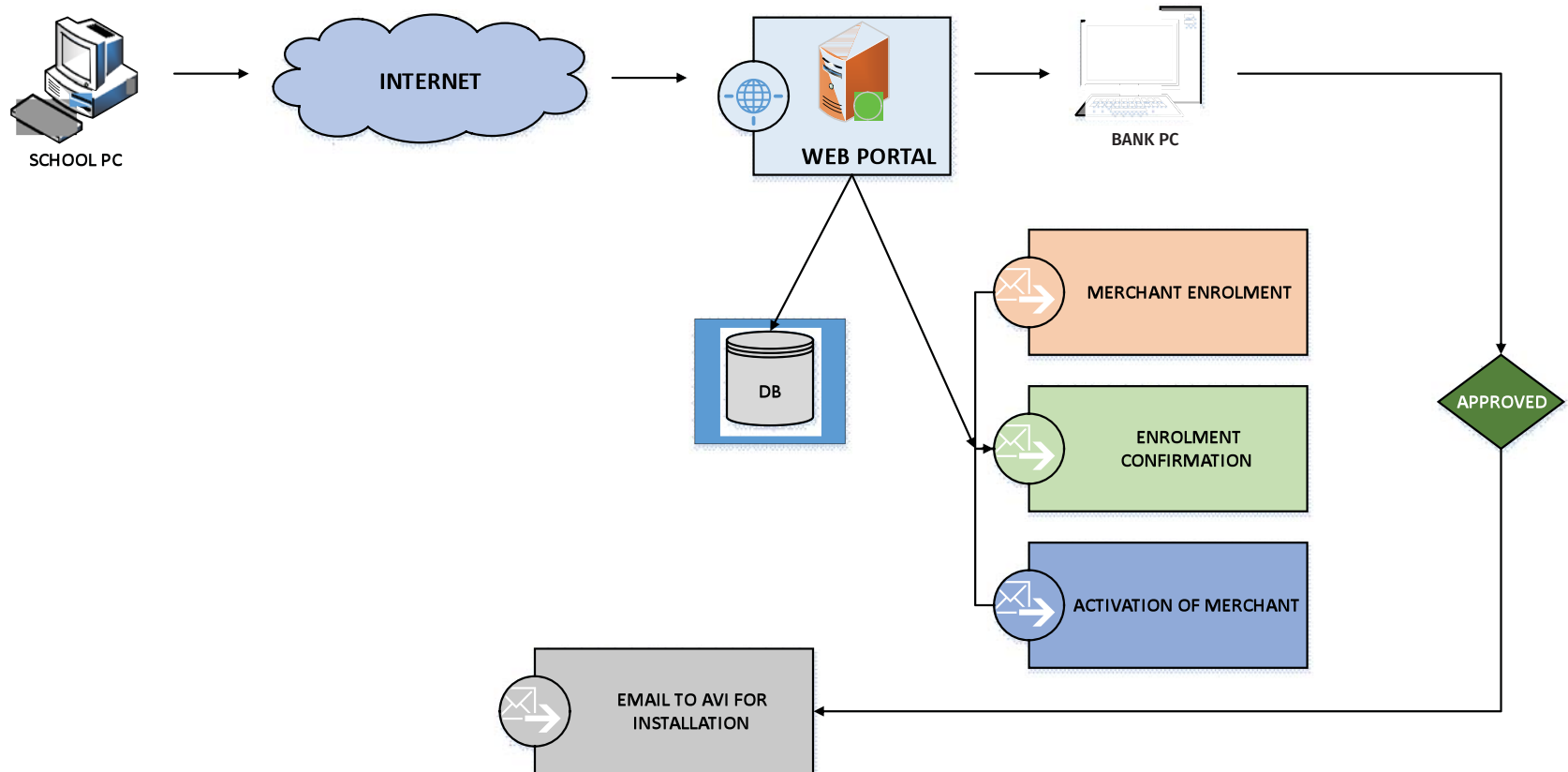
Daily Card operations using Existing Bank's Debit cards

- Add Prepaid value from bank's CDM
- Purchase at appointed merchant Shops
- Reversal/sales return anywhere

# Proposed Closed Loop payment Card System: Network Architecture

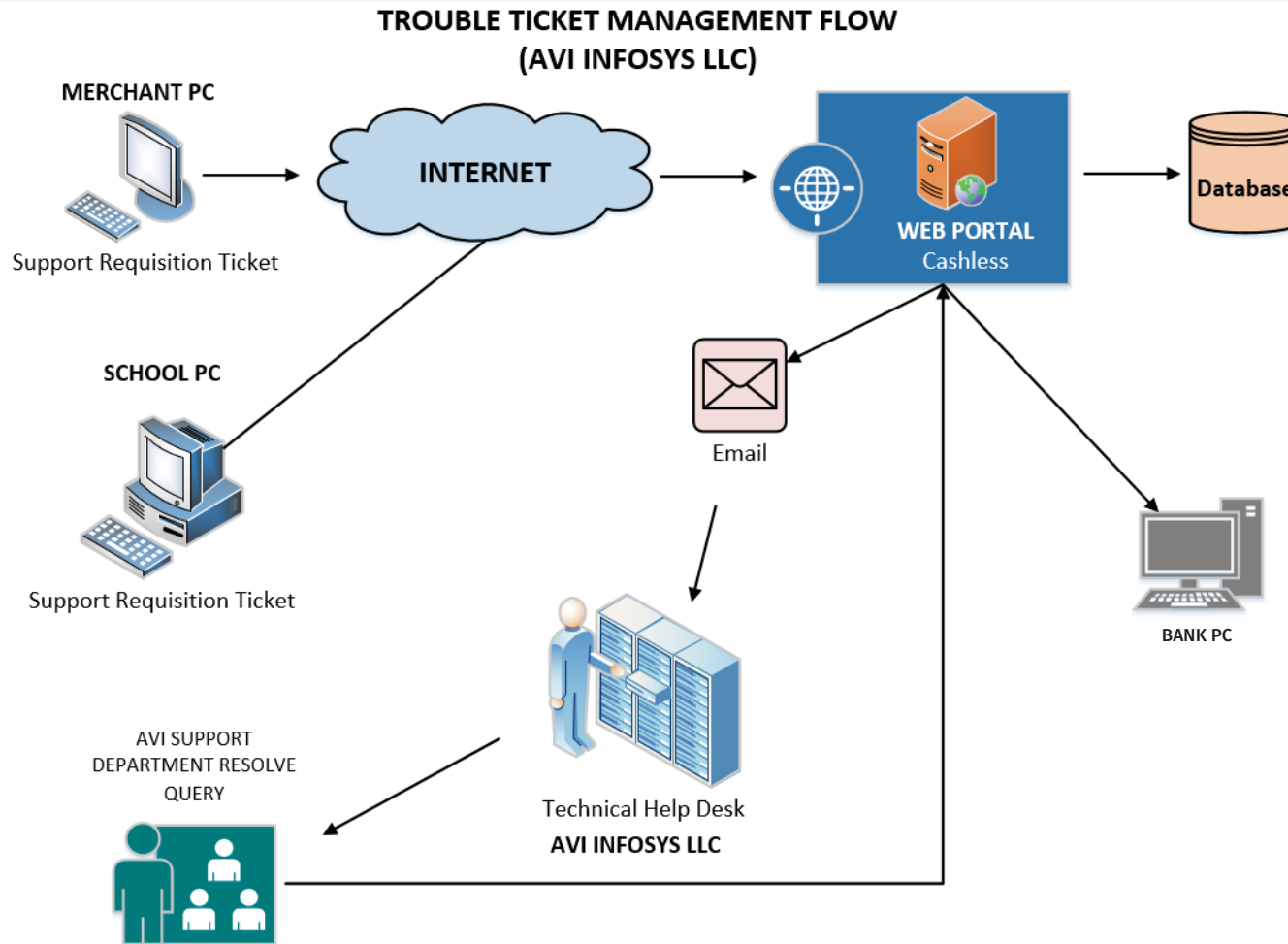


# Merchant Onboard Process

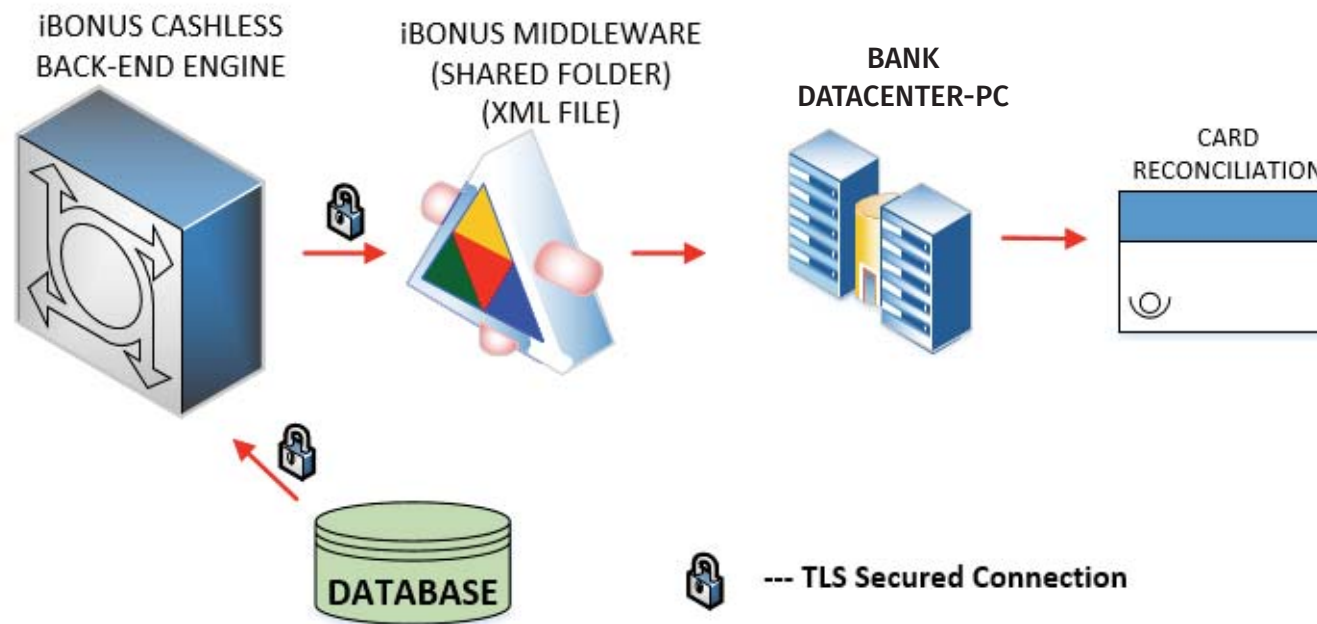




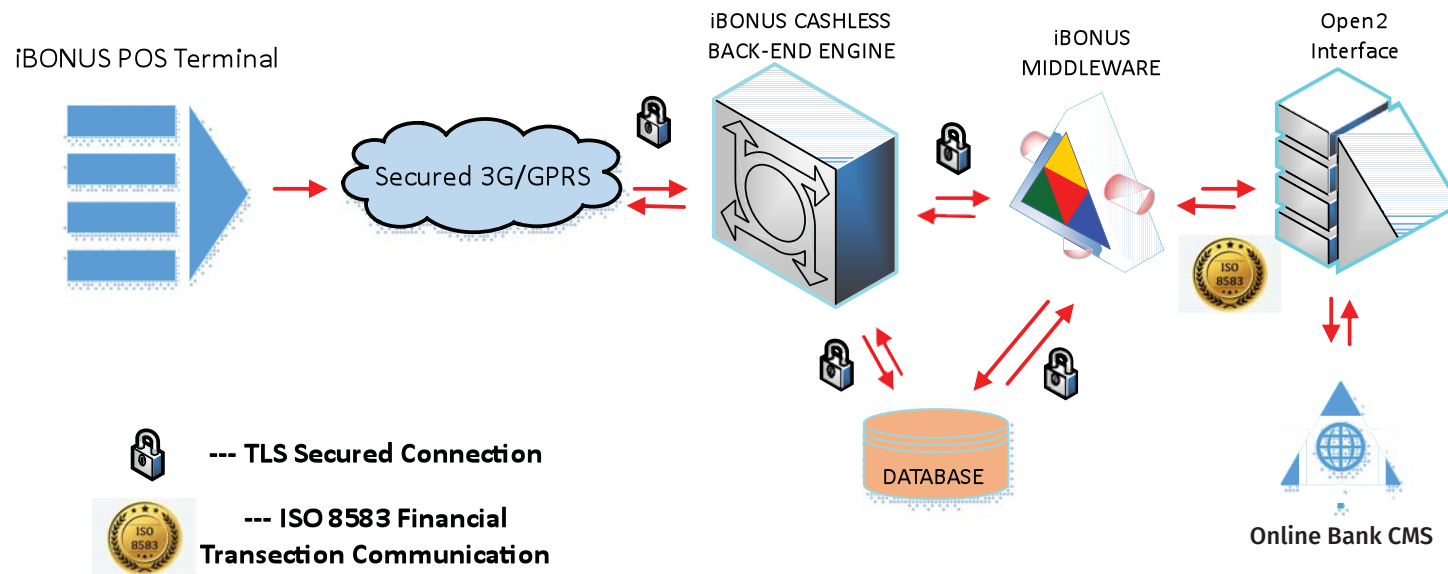
# Trouble Ticket Management Flow



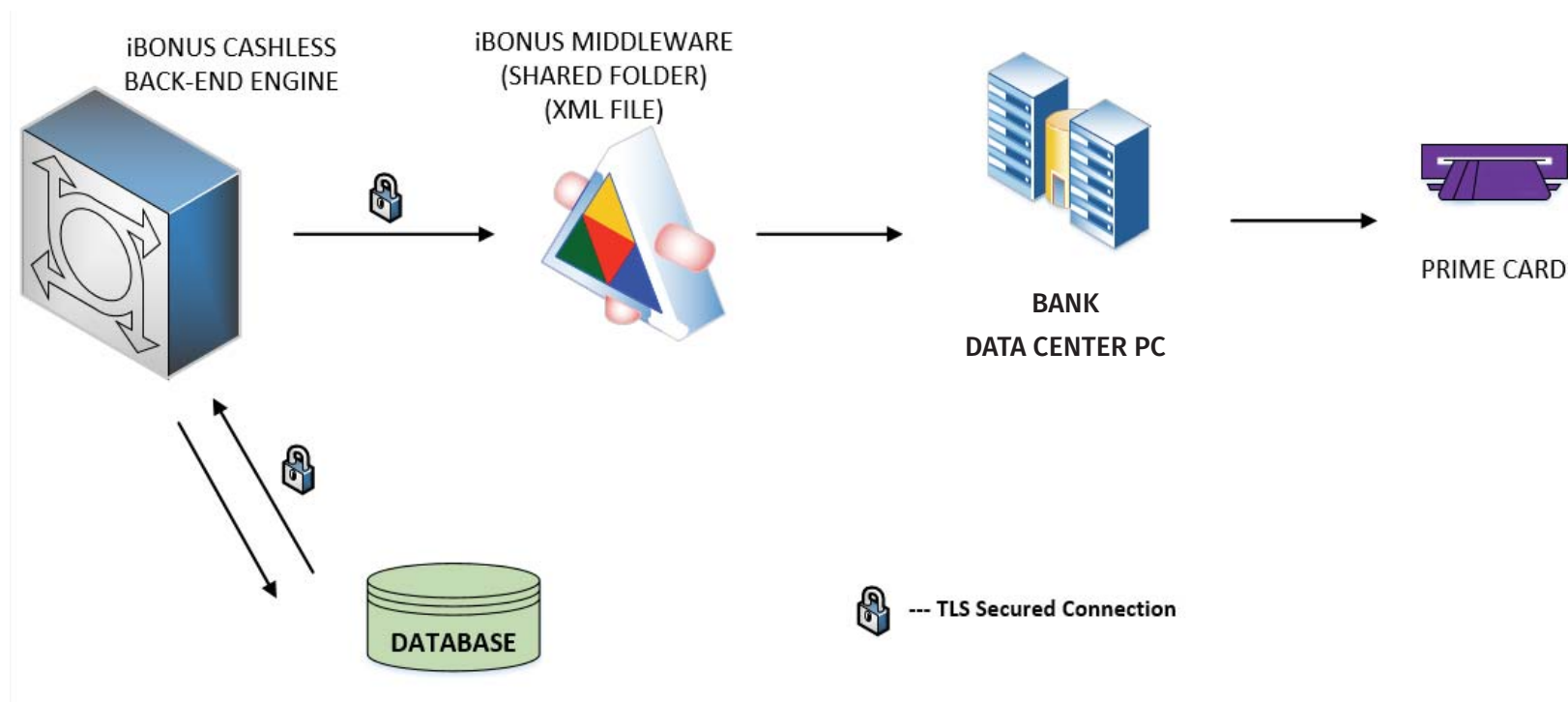
# Transaction Reconciliation Process Flow



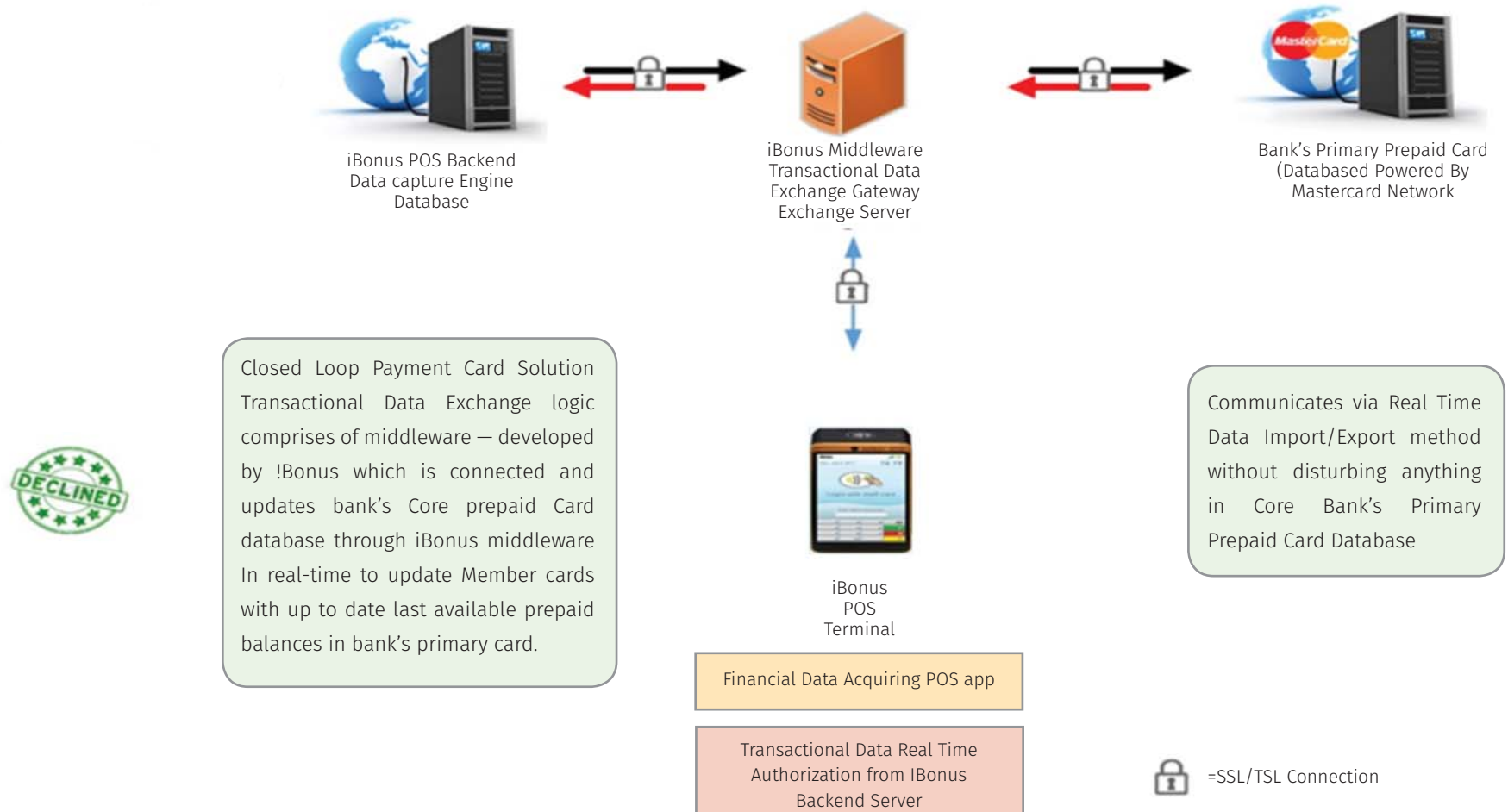
# Cash Transaction Process Flow



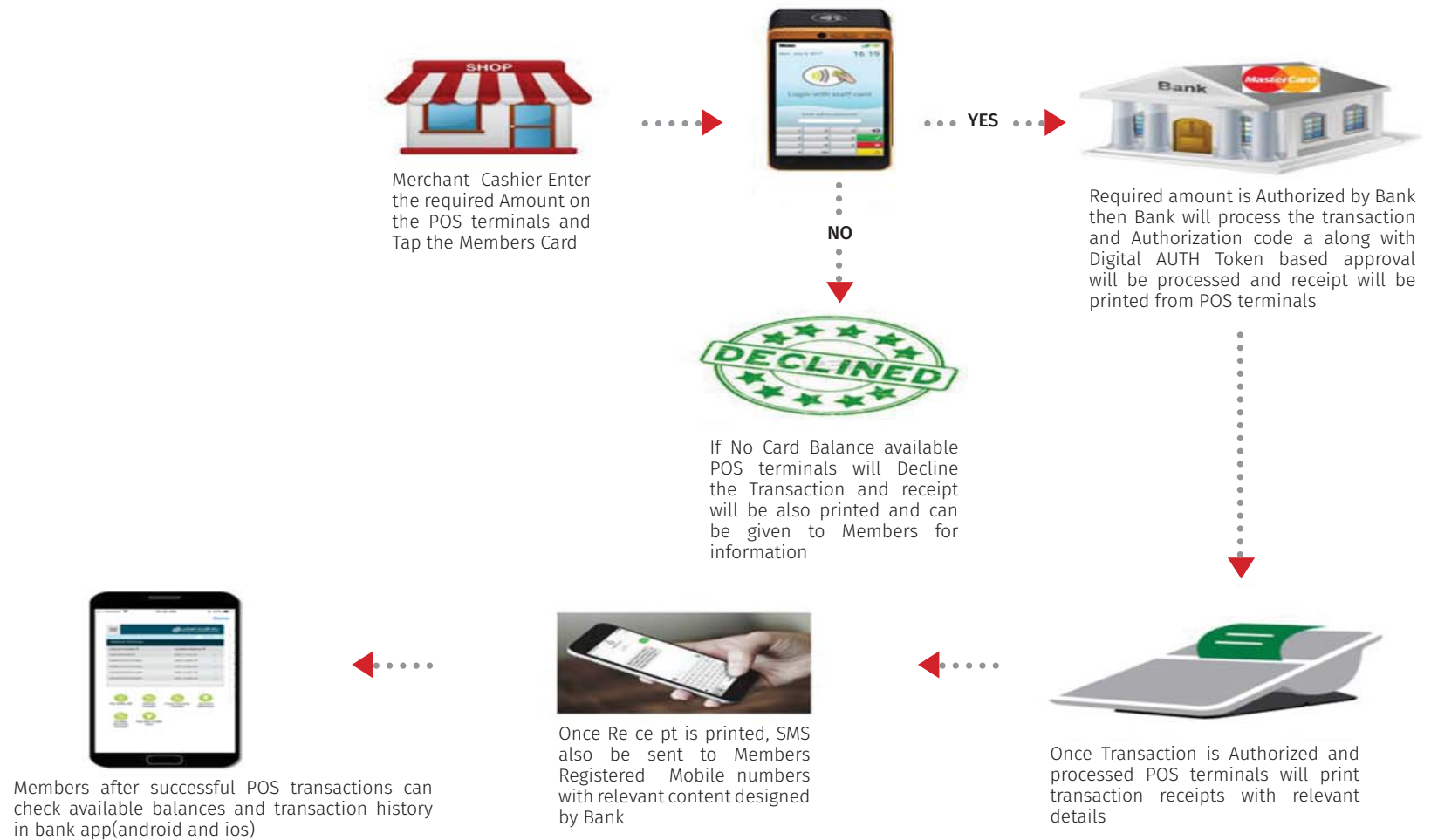
# Daily Transaction Settlement Process Flow



# Closed Loop Payment Card Transactions Authorization process



# Merchant Outlets Transactions Flow



# Web-based Reporting Tools

## Dashboard

Welcome, SYSTEM

The dashboard interface features a dark red top navigation bar with a home icon and the label 'Dashboard'. A dark teal sidebar on the left contains icons for a bank, a card, a list, a question mark, and settings. The main content area is light blue and begins with a 'WELCOME TO DASHBOARD!' message. Below this, there is a 4x4 grid of 16 white tiles, each with a purple icon and a text label. The tiles are arranged as follows:

DATABASE ACTIVITY	DATABASE CAPACITY	MERCHANT TERMINAL INFORMATION	WEB AUDIT LOG
MERCHANT TERMINAL STATUS	CARD MANAGEMENT REQUESTS	REPLACE CARD STATUS	RAISE TROUBLE TICKET
VIEW TROUBLE TICKET STATUS	BLACKLIST CARD COUNT	ISSUED CARD COUNT	TERMINAL SALES HISTORY
TRANSACTION HISTORY	TRANSACTION SUMMARY	SALES REPORT	ISSUED CARD HISTORY
MERCHANT SALES SUMMARY REPORT	MERCHANT VAT REPORT	CAMPUS SALES SUMMARY REPORT	MERCHANT SETTLEMENT REPORT



# Administrative Reports

- ▶ Issue Card List: List of all issued cards.
- ▶ Expired/Non Expired Card Holder Count: Total no of expired/ non expired Cards.
- ▶ Blacklisted Card Holder Count: Total no of blacklisted cards.
- ▶ Administrator Details: list of administrators.
- ▶ Card Holder List: list of all the customers.
- ▶ Blacklisted card holder status: status of blacklisted card yes/no.
- ▶ Replace Cards List: list of all the replace cards.
- ▶ Administrator Login/Logout: login and logout timings for all the administrators/staffs.
- ▶ Card Holder History: Card Holder History with details and branch name.