

# Mobile and Portal Business Application's Product White Paper

February 02, 2015

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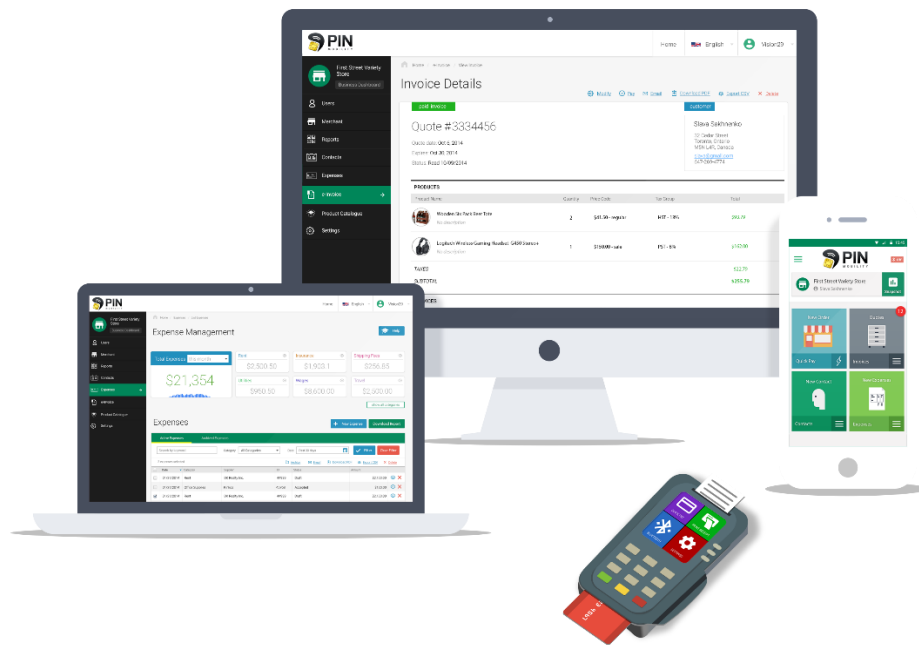
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## 1) Merchant Business Portal and MPOS; an Integrated Business Solution



PIN provides mobility and Web “eInvoice, eTicketing, expense management and payment systems (Mobile POS) and Closed Loop NFC Payments with ePurse” to our partners to automate business and deepen customer relationships for SME’s that are rapid responsive and adaptive to a competitive business markets.

- MPOS (Mobile Point Of Sale) for Interac, Visa, MasterCard supporting Android and IOS
- mCommerce and eCommerce
- Tokenization of Credit Card for Mobile Wallet and reoccurring payments
- eTicketing and Transit Systems (Business Requirements in a separate document)
- Popular accounting solutions such as Quick books is data synchronized in real time
- PIN offers custom business solutions and white label offerings

A high level description with detailed features is outlined in subsequent sections.

- PIN eCosystem Portals for B2B, B2C, C2B, facilitating eBusiness Solutions that manage customers, quotes, invoices, eTickets using NFC epurse’s, expenses management, documents, contracts, eSign artifacts and business process.
- eBusiness solutions to business and consumers through robust cloud services.
- EMV Chip & PIN Payment Processing with card present and eCommerce. Certified for Visa, MasterCard, Interac transactions.
- Flexible white label licensing and/or SaaS for customers.
- PIN operates, scalable, PCI hosted services as SaaS for SME and partners.
- Loyalty consumer applications delivering early 2015
- Update and Manage product and service catalogues with categories, price codes, product images, multi-warehouse, tax groups etc.

- Create and Manage customer, invoice's that can be paid by multiple methods; cash, cheque, credit and new forms of payment
- Reports for transaction history real-time updates with method of payment

### 1.1) Smartphone Mobile Point Of Sale (MPOS) Application Overview

PIN MPOS is a customized interface that can easily be updated for new secure EMV payment terminals (Ingenico, PAX, and others) supporting Chip & PIN, contactless, and magnetic stripe cards.



**Quick Pay:** Enter a transaction amount for approval and customer with all payment types that are supported:

- Debit, Credit “Visa, MasterCard”, Cash and Cheque
- Complete a refund for credit and debit transactions

**Invoice and Quotes:** Creates a Quote and or invoice for specific customers with products and invoices synchronized with the product catalog one off products and for services with current pricing. Orders are saved and sent to customers with an email link to Customer Portal for review and approval.

- **Invoices** can be paid with supported payment terminals, cash, or cheque. New forms of payments to be supported in future releases
- **Notification** of Orders and payments are sent to customers via email or SMS and can be reviewed at any time via the Customer Portal or directly with the eReceipts module of consumers’ smartphone application
- **Transactions:** Lists all transaction types with details from the original invoice.
- **Receipts** can be viewed and reprinted
- **Purchase** corrections for Credit and Debit transactions are provided
- **Your Customers:** Create and manage customers with customer name and full address that is GEO Coded for our map location application. Customer information is stored in PIN Cloud server synchronized to mobile devices and always available online
- **Email or phone** a customer directly from customer profile

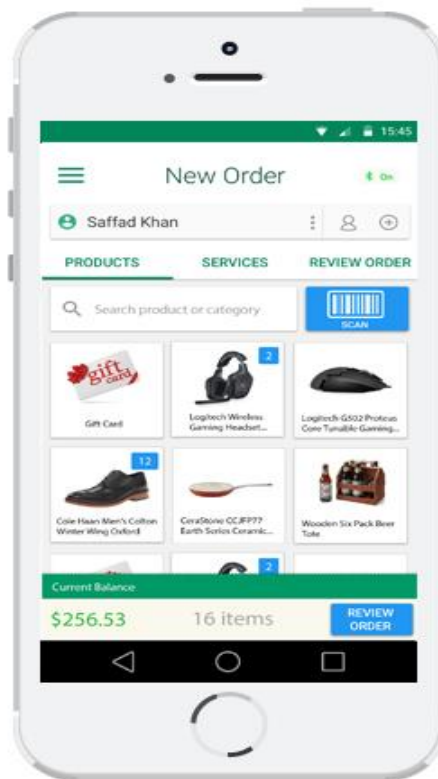
- **Map location** of customer with current location and route with distance from current location
- **Setup** or update merchant profile with information, such as company logo to be shown on customer invoices, and manage individual merchant locations via the Merchant Profile button at the top of the screen.

### Supported Mobile Platforms



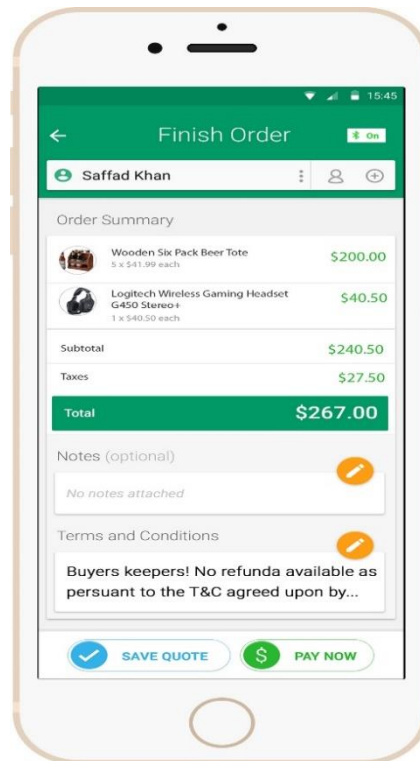
### Inventory List and Selection

Easily create New Orders by browsing the Inventory or using the Search function to find a specific item



### Invoice Detail with Selected Items

Review Invoices and save as a Quote or send for Payment to portable Bluetooth connected payment terminal.



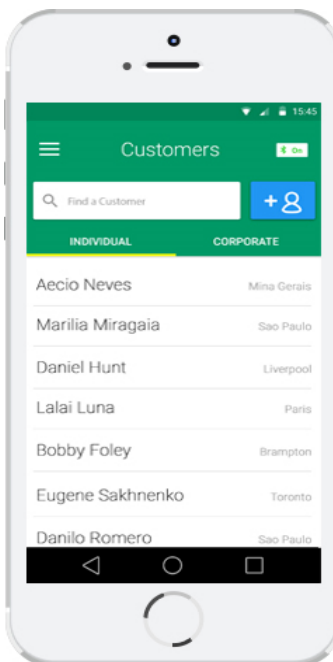
### 1.1.1) Business Snapshot

Simplified version of Business Dashboard available on the Management Portal. Features include:



- Daily average of Quotes, Invoices, and Expenses
- Days Quotes, Invoices, and Expenses
- Totals for Day
- Graph view of Totals

### 1.1.2) Customers



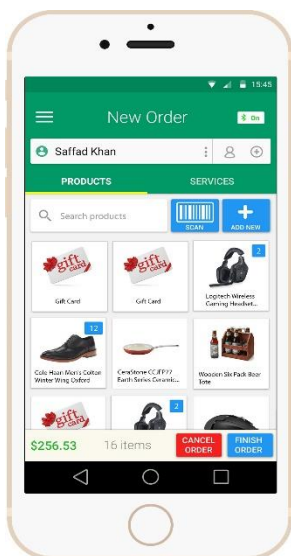
- Create and Manage customers
- View Customer list
- Filter and find customers
- Phone or email a customer
- Find a customer on the Map Application
- Create a quote and or invoice for a customer



### 1.1.2) Quick Pay

- Fast and simple to enter an amount and select the method of Payment
- Select whether the transaction is a Customer or one-time Cash sale
- Support for Customer External Invoice Numbering
- Send Receipt can be sent via SMS or email Yes/No
- Support for TIP Yes/No

### 1.1.3) Detailed Invoice with Products and Services

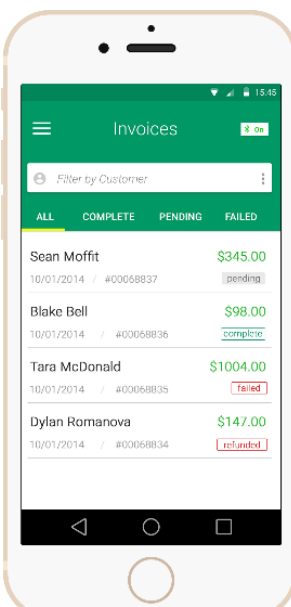


- Enter Multiple Service Types with Hourly Rates
- Services as supporting multiple hourly rate's
- Select Products from Product Catalogue with quantity

#### Create and Manage Quotes

- Same features as with Complex Invoices
- Quotes are sent to customer for approval or decline with comments
- Add an Expiry Date for a Quote

### 1.1.4) Completed Transactions



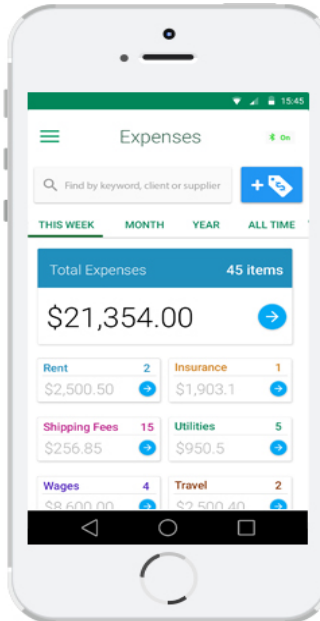
- Reports for completed transactions for the current date or selected date range
- Completed Returns and Purchase Refunds
- Support for duplicate receipts (Reprint and Resend)
- Print Receipts via Google Print and external Bluetooth printers

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### 1.1.5) Expenses

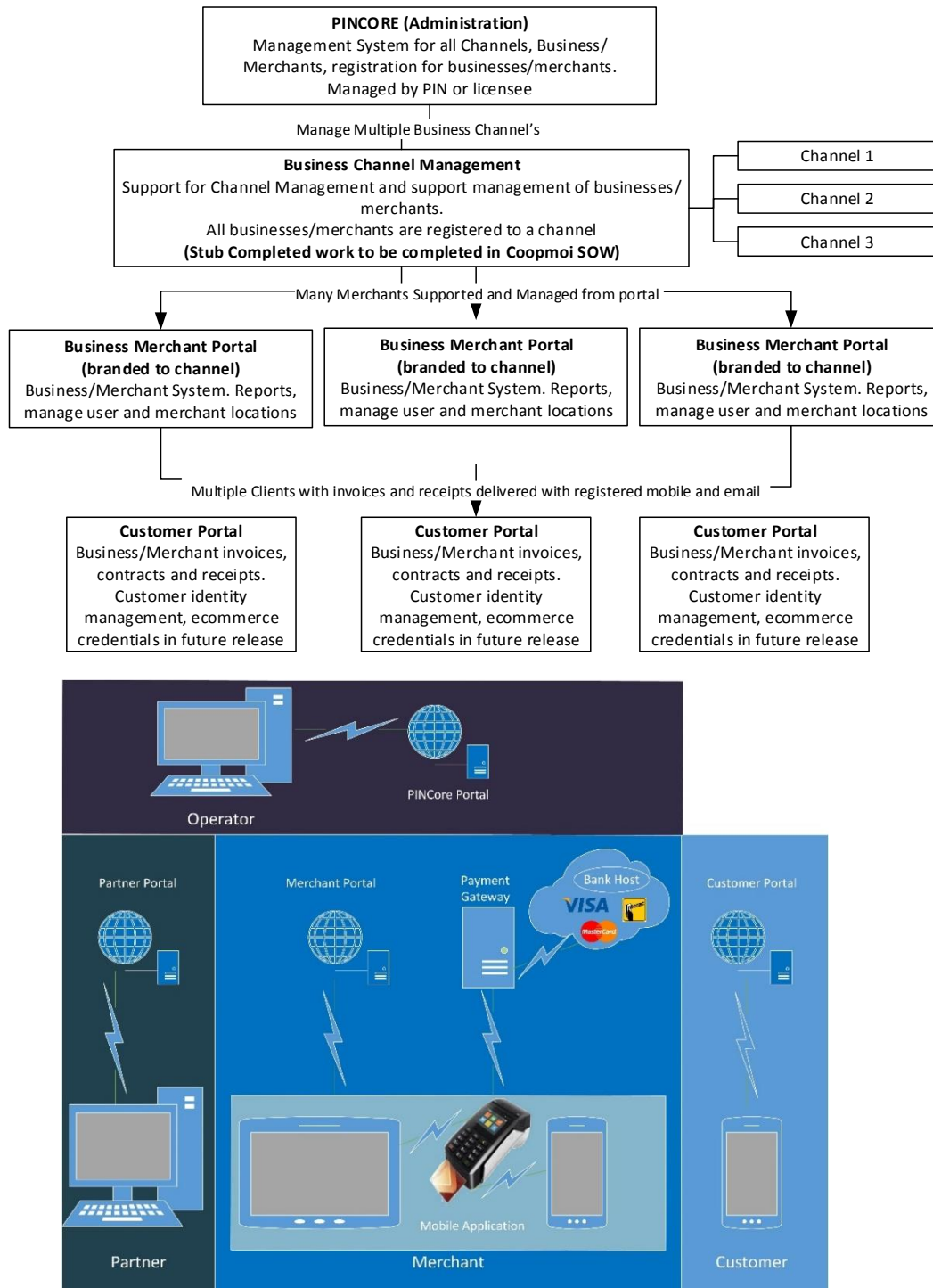
Simplified Expense details similar to that in the Management Portal. Features include:

- Total of all Expenses
- Totals by Category
- Totals for Week/Month/Year/All-time
- Searchable by Keyword/Client/Supplier



## 1.2) Management of Merchants, Business Channel & Independent Sales Organisations ISO's

Our Multi-tier layer web portals allows for all levels of partners to manage multiple Merchant Business channels: we adapt to specific business requirements to provide a streamlined experience for the small, medium, or enterprise business.

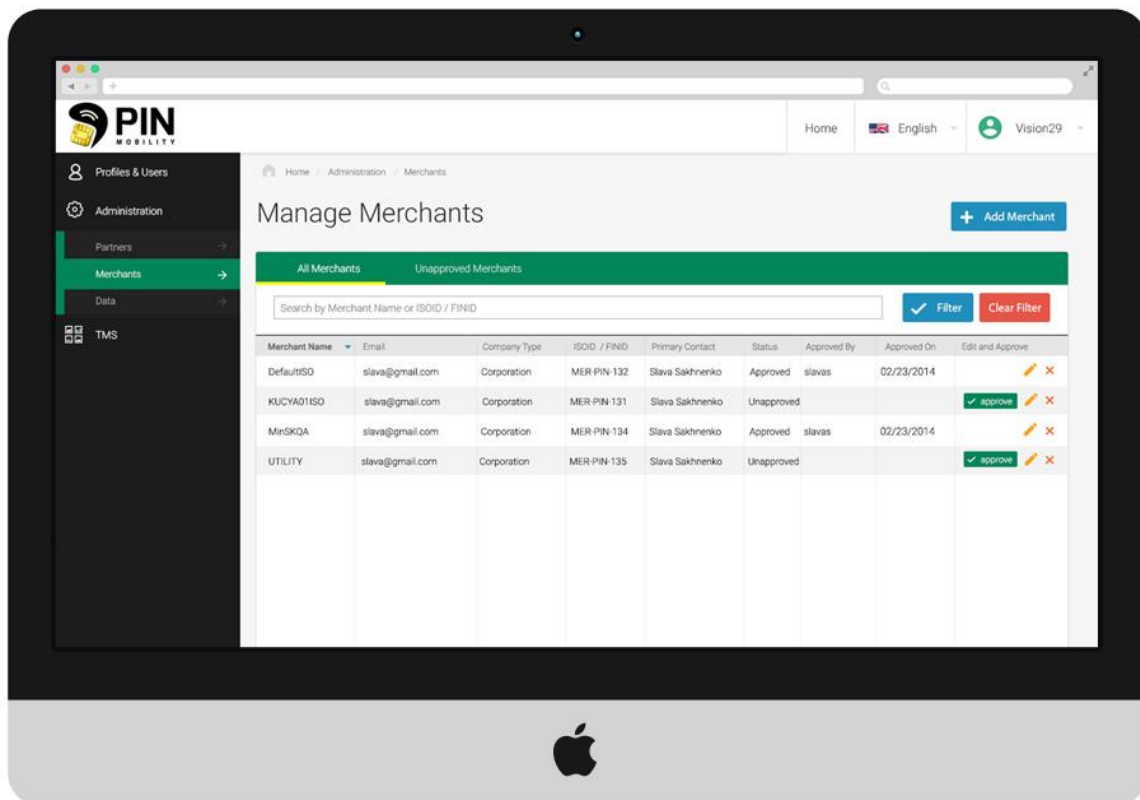


## 2) PIN Management Portals Features

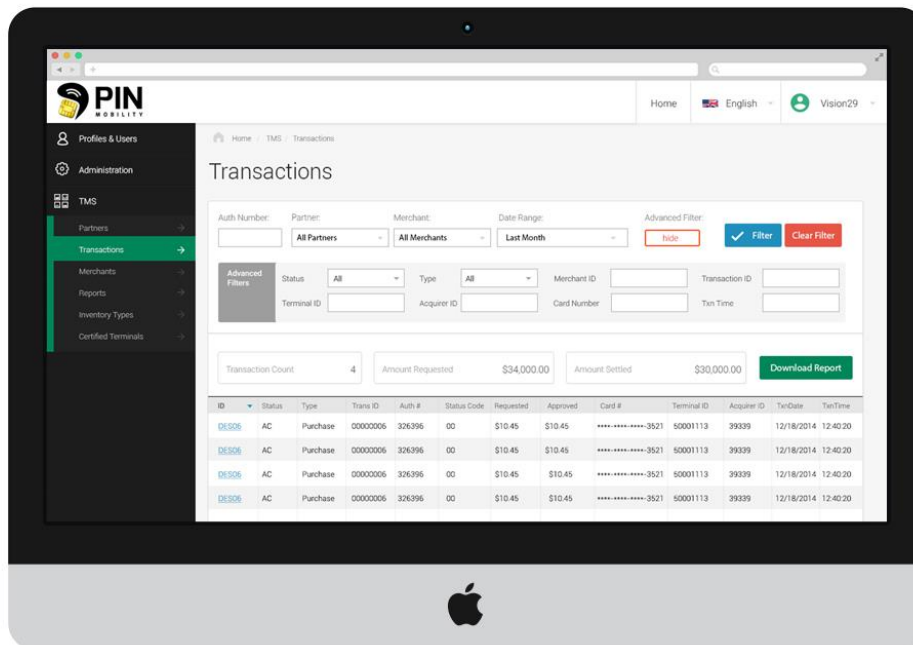
### 2.1) PINCore Admin Portal (PIN and/or License Operations)

#### 2.1.1) Management of Portal Admin users with profiles provides limits on access

- Create and Manage Merchant Profile and Reset passwords for merchants' users
- Bulk Import Merchant Profiles
- View Merchant Transaction reports for Debit and Credit with filters by Merchant, Date, Terminal ID and Transaction Types such as Cash, DR/CR Card, and Cheque



## 2.1.2) Terminal Management

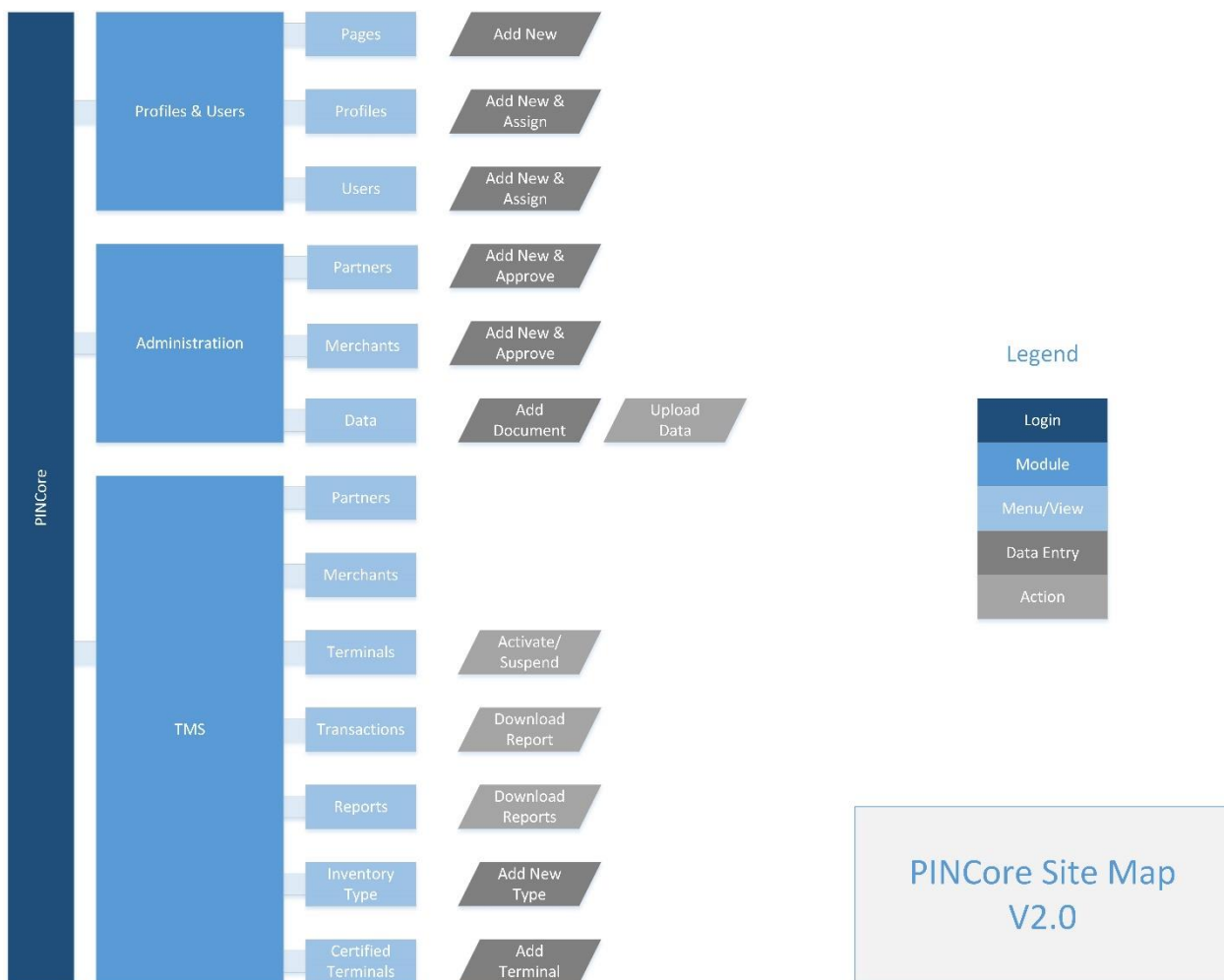


- Bulk import of exiting terminal data can done via configuration file management
- The PIN Admin Portal identifies a terminal through a unique Terminal ID
- Different statuses can be assigned to a terminal and status level can change depending on the situation of the terminal
  - Unassigned
  - Assigned
  - Lost and Returned
- A Lost or stolen terminal is subject to deactivation status; any subsequent use raises an alarm/incident with transactions refused
- The solution includes logging for state changes
- The PIN Merchant Management System supports creation of new terminal status
- Terminal information such as terminal model, address etc.is also entered.
- Terminal can be managed by merchant location
- Terminal location reports are generated in excel or PDF for Unassigned, Assigned, Terminal Auto Assign, Lost, Returned
- At the first utilization of a terminal, the PIN Merchant Management System can assign the terminal uniquely to its merchant (through association of the terminal identifier to the merchant identifier) In the same process, the terminal is considered activated
- The PIN Merchant Management System validates that terminals are at all times uniquely associated to the merchant. In the case of the same terminal id being used by a different merchant, the transaction is not processed and a flag is raised. (Example, when a terminal is stolen and trying to be utilized by someone else)
- The PIN Merchant Management System performs terminal authentication before processing a transaction

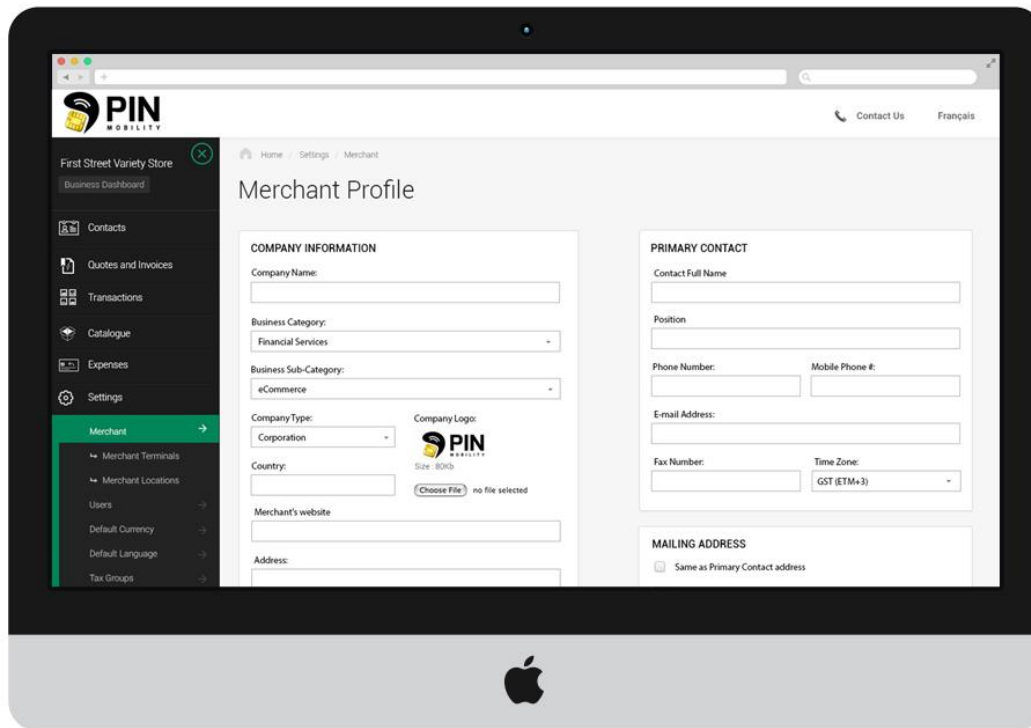
- PIN Merchant Management System “Portals” only accept transactions from valid, activated and authenticated terminals
- The Sales Application supports transactions with signature (CVM). The signatures will be digitized and stored on the PIN Merchant Management System “Portals” for later referencing
- The PIN Merchant Management System “Portals” can log and store transactions for a period of a minimum 5 years.

### 2.1.3) PINCore System Administration Management Portal – Site Map

**Intuitive and easy-to-use User Interface helps Administrators quickly and effectively manage Setups**



## 2.2) Merchant Administration Portal



### 2.2.1) Admin Functions

- Provides for Merchant Self-registration
- Creates multiple "Clerks" for a current merchant profile
  - Merchants can Add, Delete, Rename or Change status of Clerks
  - By default, a Clerk can use any Terminal owned by the merchant, however, a merchant can restrict clerks to a specific terminal. When restricted, Clerks can only use the assigned terminal
  - Management of Clerks and Terminals is user-friendly for the Merchant
- Web Interface is available in both English and French and other languages can easily be added
- Interface is accessible from most popular Web browsers on PCs, tablets, and mobile phones
- PIN provides for management of Merchant Locations and up to two levels via regions and sub-regions fields which can be used to set custom classifications for corporate and franchise stores, Other options exist
- Management of Tax types for GST, HST and PST for each province is accessed from within the Admin Portal
- Alert management tools exist for system Notifications, Scheduling and Tasks
- 3rd Party accounting system integration is automated.
- Receipts and emails can be sent in the customer's preferred language and taken directly from the profile sent in the in the customer's card
- Merchants can regenerate or resend receipts to customers

## 2.2.2) Product Catalogue

The Product Catalogue is a simplified Inventory Management system enabling a merchant or service provider to keep track of inventory items and associated costs and supports the following:

- Multiple Price Codes
- Product costs and Cost of Goods Sold
- Multiple inventory warehouse (based on merchant locations)
- Inventory counts and Backorders
- Purchase Orders to accept goods

The screenshot displays the PIN Mobility Product Catalogue interface. At the top, the PIN Mobility logo is on the left, and navigation links for 'Contact Us', 'English', and 'Vision29' are on the right. A left sidebar contains a menu with options: 'First Street Variety Store', 'Business Dashboard', 'Contacts', 'Quotes and Invoices', 'Transactions', 'Catalogue' (highlighted), 'Product Categories', 'Expenses', 'Settings', 'Need Help', and 'Tips and tricks'. The main content area is titled 'Catalogue' and includes buttons for '+ Add New Product' and 'Upload Catalogue'. Below these is a 'Filter Catalogue' section with input fields for 'Name', dropdowns for 'Type' (set to 'Products & Services') and 'Category' (set to 'All'), and a 'Show Deleted?' toggle (set to 'Yes'). 'Filter' and 'Clear Filter' buttons are present. Below the filters, it states '1 catalogue selected' and provides options to 'Email', 'Download PDF', 'Export CSV', or 'Delete'. A table lists the products:

<input type="checkbox"/>	Picture	Name	Description	Price	Deleted	
<input checked="" type="checkbox"/>		Coleman Deluxe Lantern	Reliable, extended-run outdoor illumination can be yours with...	45.00	No	
<input type="checkbox"/>		T-fal C92102 Initiatives Ceramic...	Ceramic Nonstick Dishwasher Safe Oven Safe PTFE Free Fry Pan Cookware, 7.5-inch...	45.00	No	
<input type="checkbox"/>		Coleman Deluxe Lantern	Reliable, extended-run outdoor illumination can be yours with...	45.00	No	

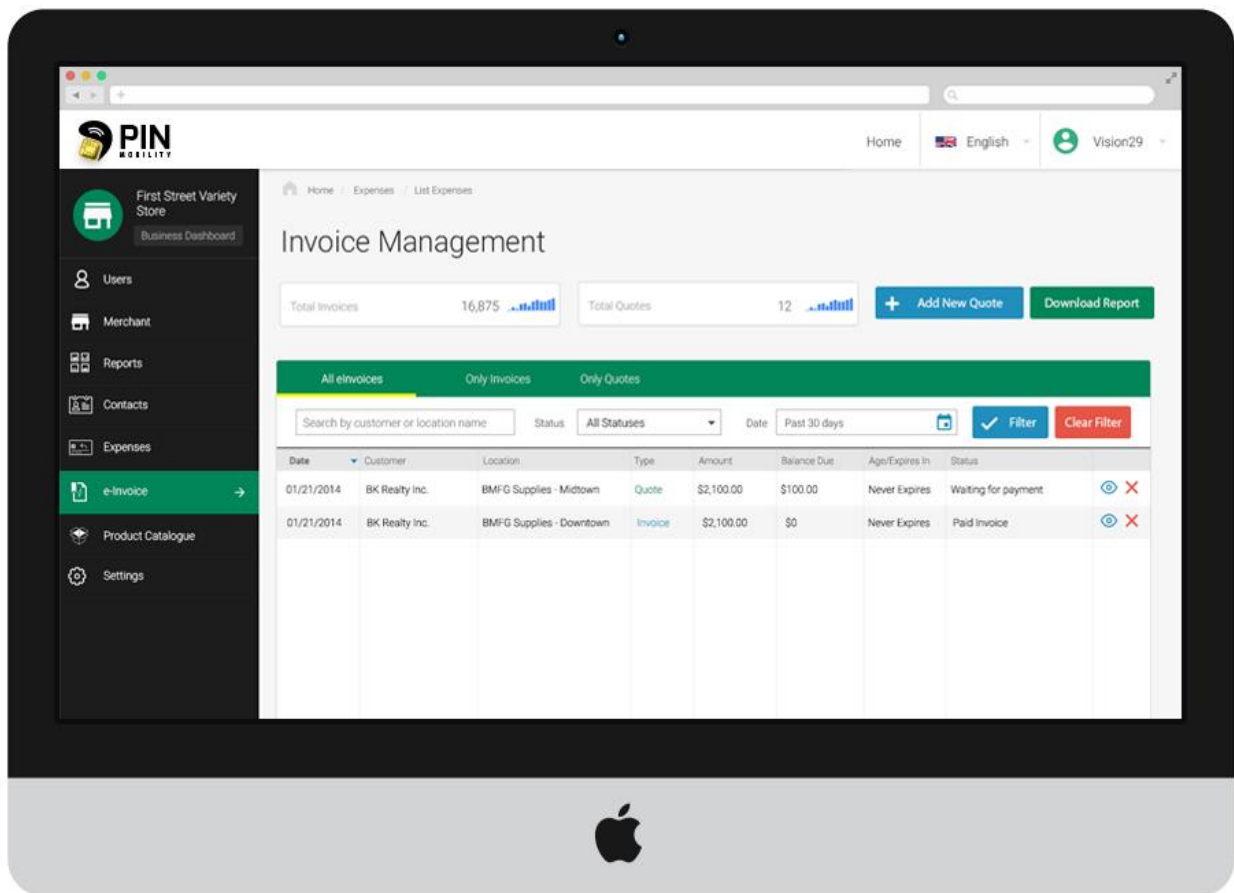
The footer contains 'Products | Solutions | Contact Us | About Us', social media icons for Facebook, Twitter, YouTube, and LinkedIn, and a copyright notice: '© 2004 - 2015, Pin Payment Solutions, All rights reserved.'



### 2.2.3) eInvoice

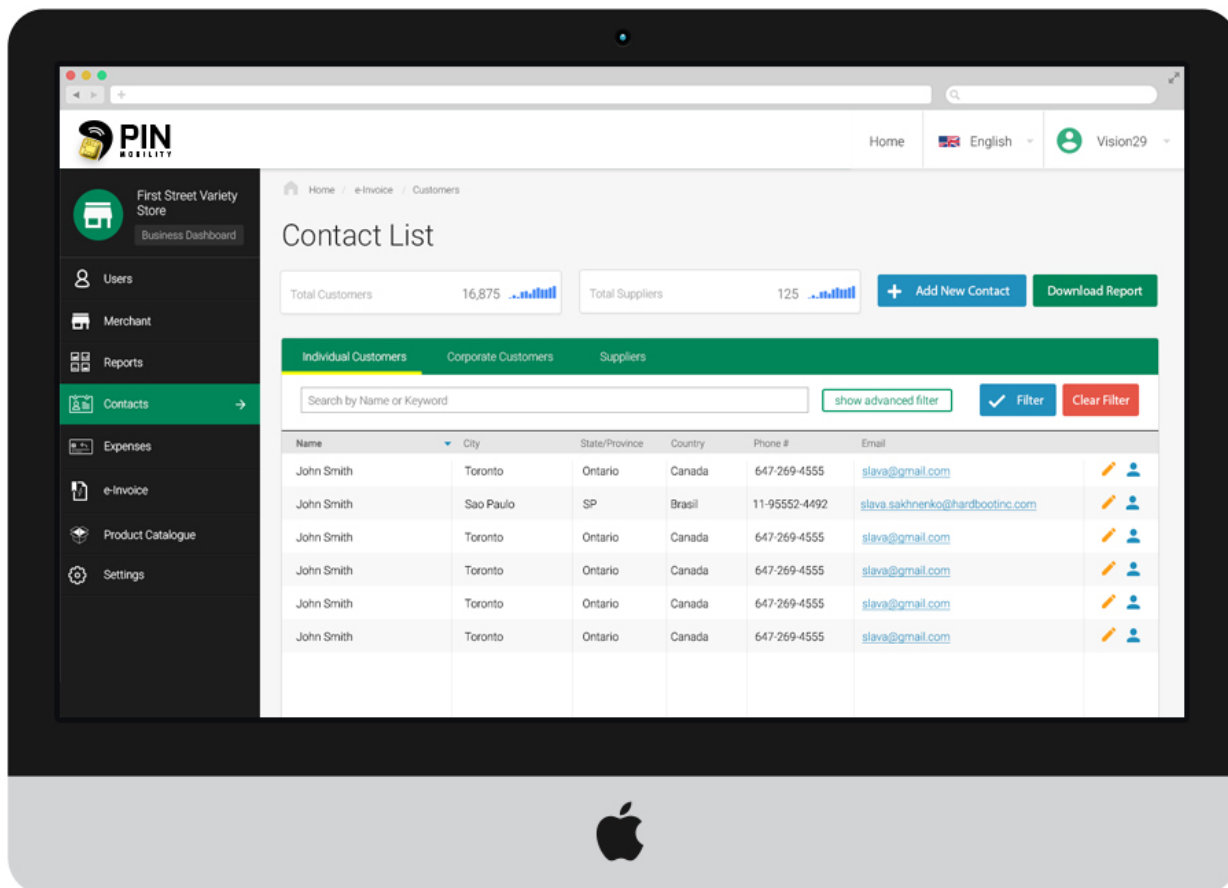
The Electronic Invoice (eInvoice) generation, management, and payment by Cash, Debit, or Credit is a fully supported function with the following additional features:

- Multi-Currency support
- The ability to add new Customers and Inventory items on the fly
- When creating a Quote for review by a Customer the Quote when selected for Payment will automatically transitions into an Invoice
- The solution offers Card Not Present (CNP) payments for eCommerce sales
- The option exists to create an Invoice for a specific Customer from a Contact list or for a one-time cash sale customer
- Additional functions exist such as the ability to create a Recurring Payment and to notify the Customer ahead of each billing occurrence.



## 2.2.4) Contacts

The Contacts function allows for the creation of a Customer or Corporate Contact. The Contact List is importable/exportable to Excel. Contacts may also be imported from a local Contact List or Address book on the Tablet or Smart Phone.



## 2.2.5) Expense Management

The Expenses Management module provides a critical component to assist SME clients with managing their business. Here, clients can add Suppliers and Expenses, and assign to a Category for easy tracking:

- Totals for the Week, Month, or Year
- Totals by Category
- A List of all Expenses for a specified date range
- Export Expense Listings to an Excel spreadsheet

**Expenses**

Active Archived

Search by keyword Category: All Categories Date: Past 30 days Filter Clear Filter

Date	Category	Supplier	Payment Method	Tax Group	Amount	
01/21/2014	Rent	BK Realty Inc.	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Office Supplies	Kinkos	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Rent	BK Realty Inc.	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Office Supplies	Kinkos	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Rent	BK Realty Inc.	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Office Supplies	Kinkos	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Rent	BK Realty Inc.	CreditCard	HST (13%)	2,100,000 \$	
01/21/2014	Office Supplies	Kinkos	CreditCard	HST (13%)	2,100,000 \$	

Products | Solutions | Contact Us | About Us

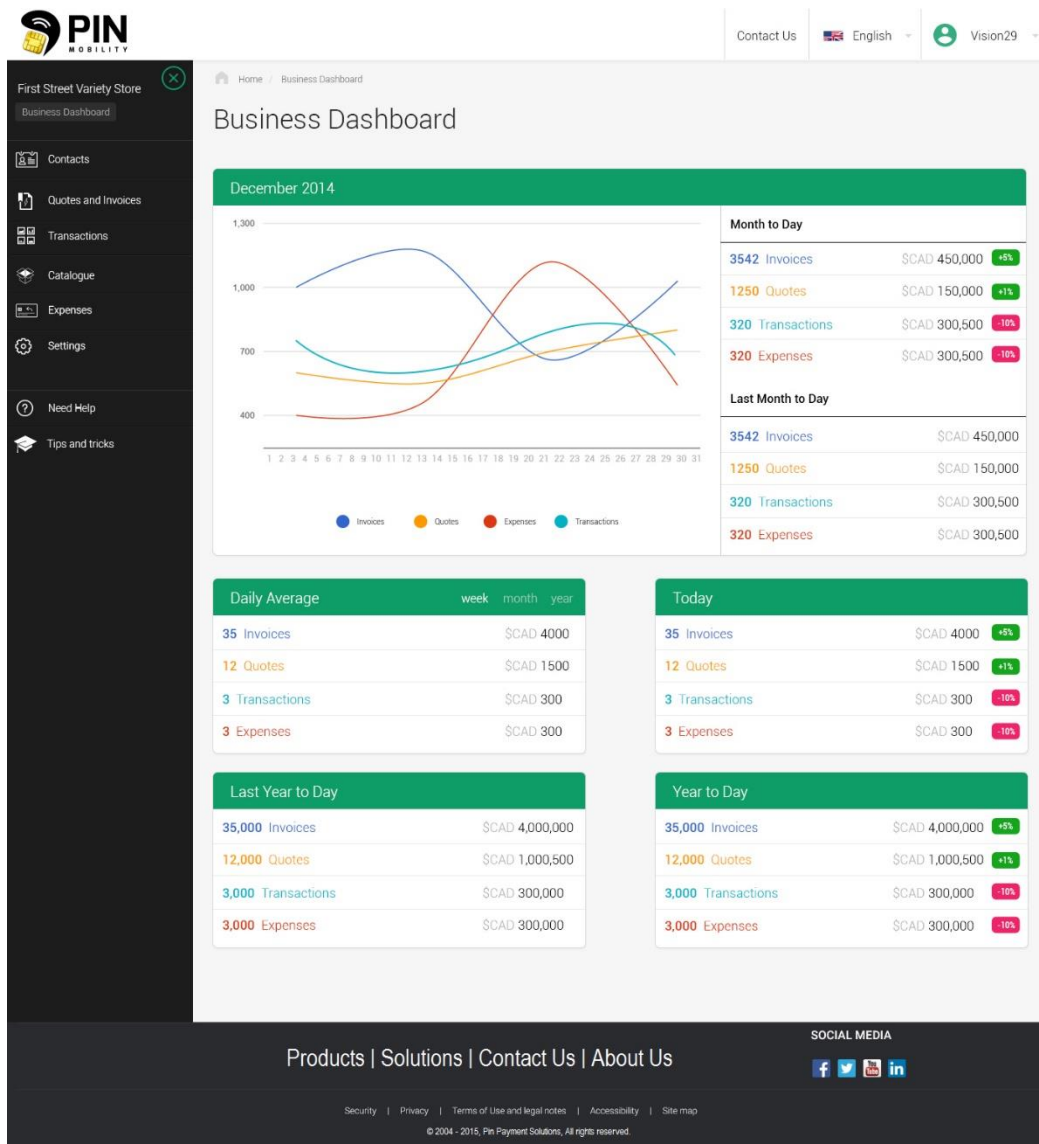
Security | Privacy | Terms of Use and legal notes | Accessibility | Site map

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## 2.2.6) Business Dashboard

The Business Dashboard provides a handy snapshot of MTD/YTD Revenues and Expenses

- MTD Totals of Invoices, Quotes, and Expenses with +/- percentage compared to previous month
- YTD Totals of Invoices, Quotes, and Expenses with +/- percentage compared to previous year
- Total amount of Invoices, Quotes, and Expenses for previous month and previous year
- Daily, Weekly, Monthly, and Yearly averages of number of Invoices, Quotes, and Expenses and dollar value of each category.



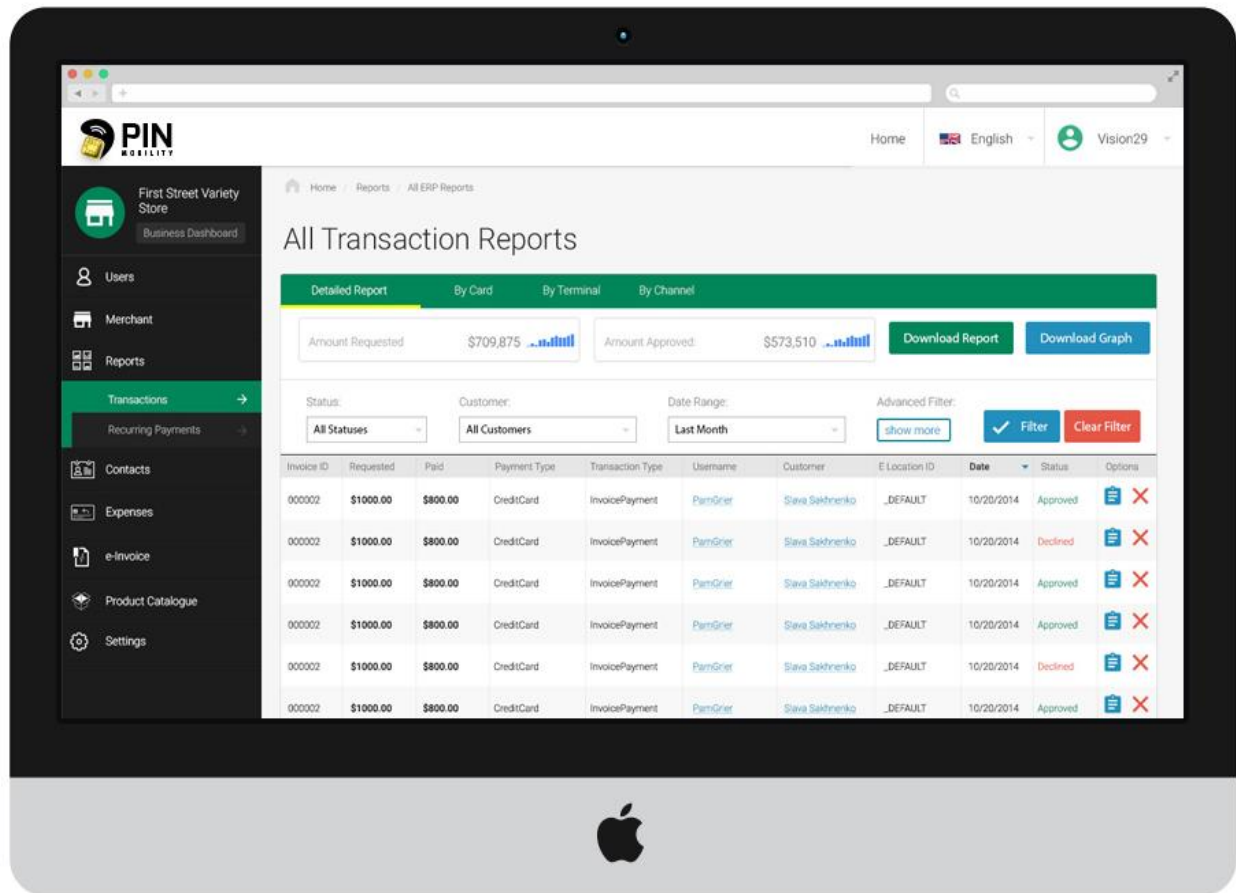
## 2.2.7) Import & Export Data

To help facilitate the quick and easy exchange of critical data, PIN provides a template Excel format for the Import and Export of Contacts, Catalogue of Products and Services, and Locations.

## 2.2.8) Reports

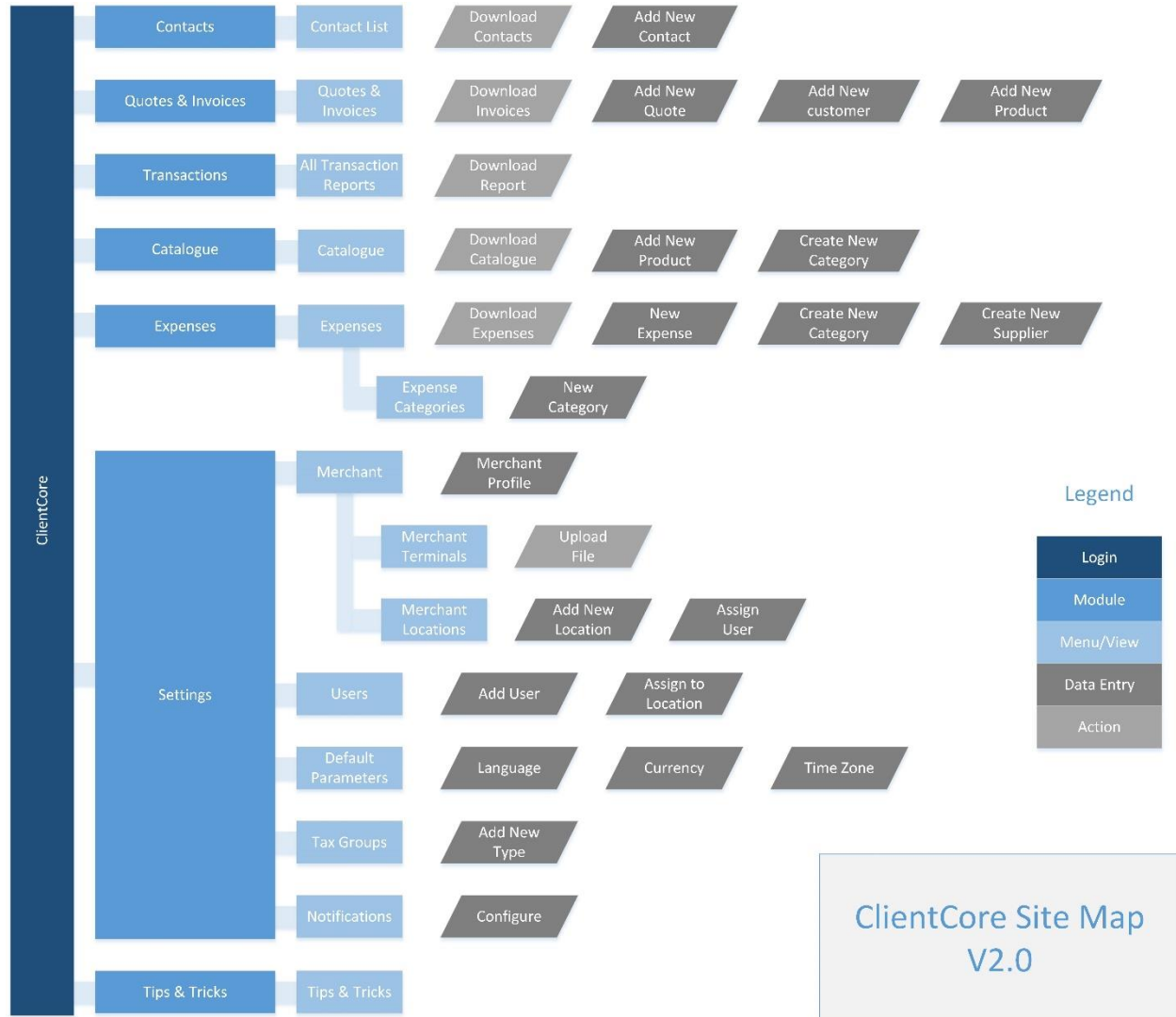
PIN provides a comprehensive suite of reports compiled from data gathered across the system including:

- Merchant Transactions for Credit and Debit with filters by Date Range, Terminal ID and Location
- Merchant Transactions for Credit and Debit by Location for Merchants with multiple locations
- Detailed Merchant report for all payment types with receipts, invoice's and additional details



## 2.2.9) Site Map Merchant Management System

Same intuitive easy to use interface as the PINCore Management Portal



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## 2.3) Customer Portal

A great add-on feature for Merchants and Service Providers, the Customer Portal allows their Customers to view and action Quotes, and view and print Invoices and Receipts. An important feature here is the ability to tokenize Credit Cards allowing for seamless payment of eCommerce transactions and removing the requirement for PCI compliance if utilized correctly. Key features include:

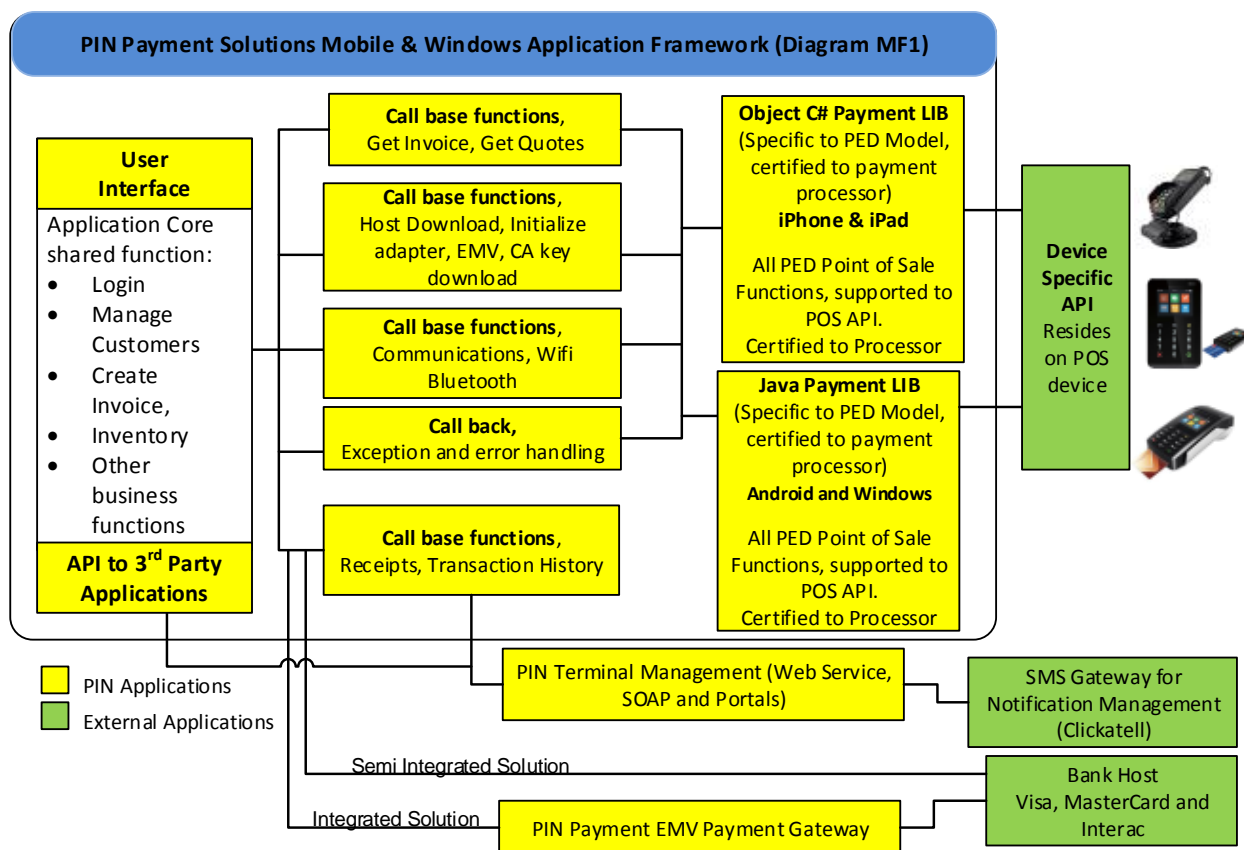
- View Completed Transactions by date range
- View Receipts and Invoice from merchants by date range
- View My Personal Profile
- Control updates of My Profile with Merchants
- View Detailed Quotes from Merchants
- Accept Quote or Refuse a Quote with Comments
- Dashboard for recent Quotes and Invoices to be paid
- Credit Card Tokenization

### 3) Server, Web Services Payment Application Framework Overview

The following diagram's outlines the customer, elnvoice frameworks for managing payments and transaction details for mobile and web portals. PINs desktop or smartphone applications sends payment information securely to supported payment device.

#### 3.1) Payment Application Framework

The following diagram outlines the architecture for the PIN Payment application for the user that would reside on a smartphone (Android or IOS "iPhone and iPad"), Windows PC or as a Windows service.



#### 3.2) Semi-Integrated Solution vs Integrated Solution

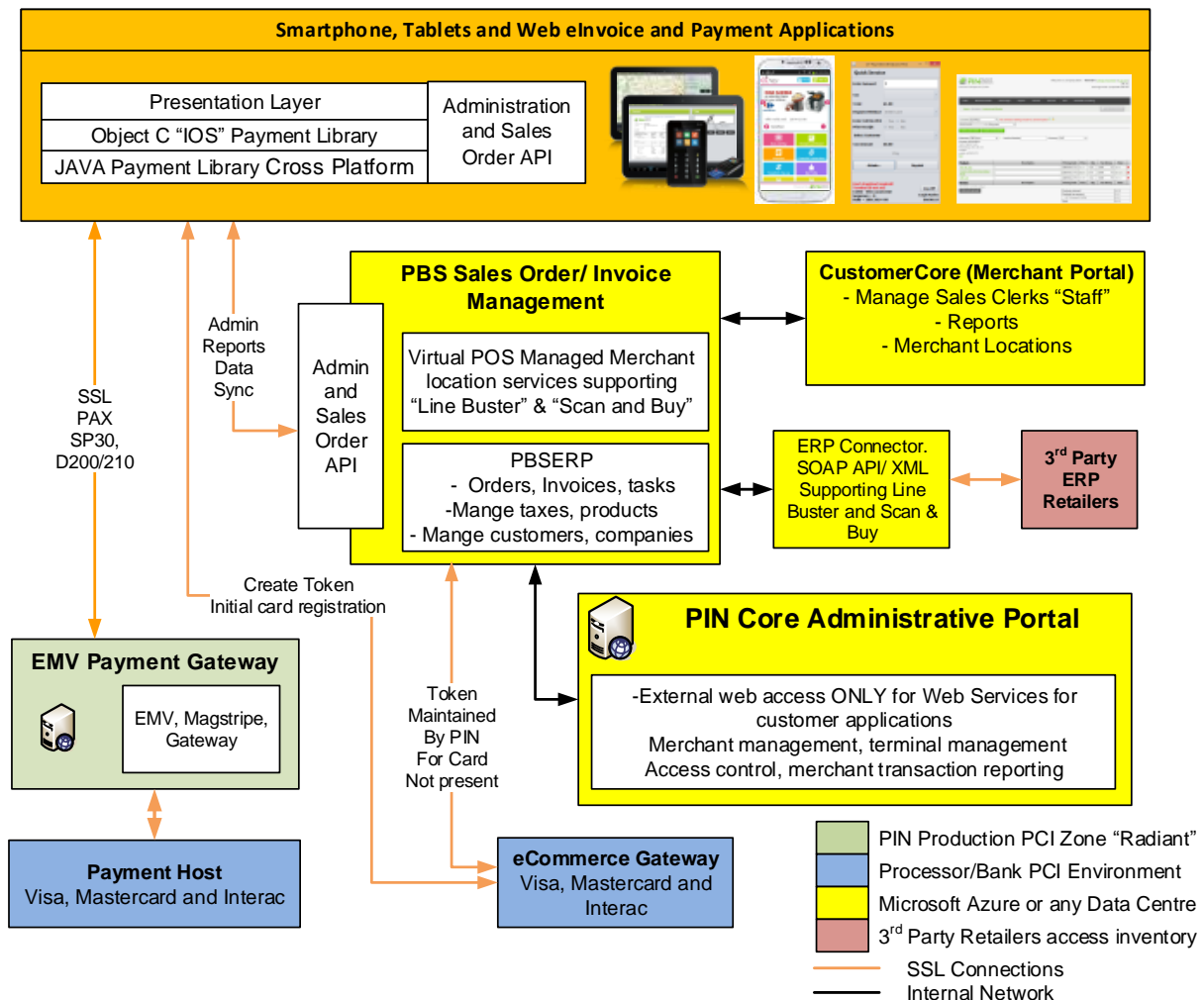
PIN provides flexibility for Merchants or Channel Partners by providing a modular/component-based product suite. For example, a small business may choose to utilize all components – Quotes, Invoices, and Payment Processing along with the IOS/Android Mobile Applications, the Merchant Portal, and the Customer Portal resulting in a completely integrated solution. However, a larger business with a pre-existing order management system and/or 3<sup>rd</sup> party payment processing services may choose to use only the Mobile components and/or the Merchant and Customer Portals. In other instances PIN may deliver a completely closed loop system which may be used for customer management, loyalty program, or gift card management.

Whatever the requirement, the PIN suite of products can quickly and easily adapt to meet the needs.



### 3.3) Server and Application Framework

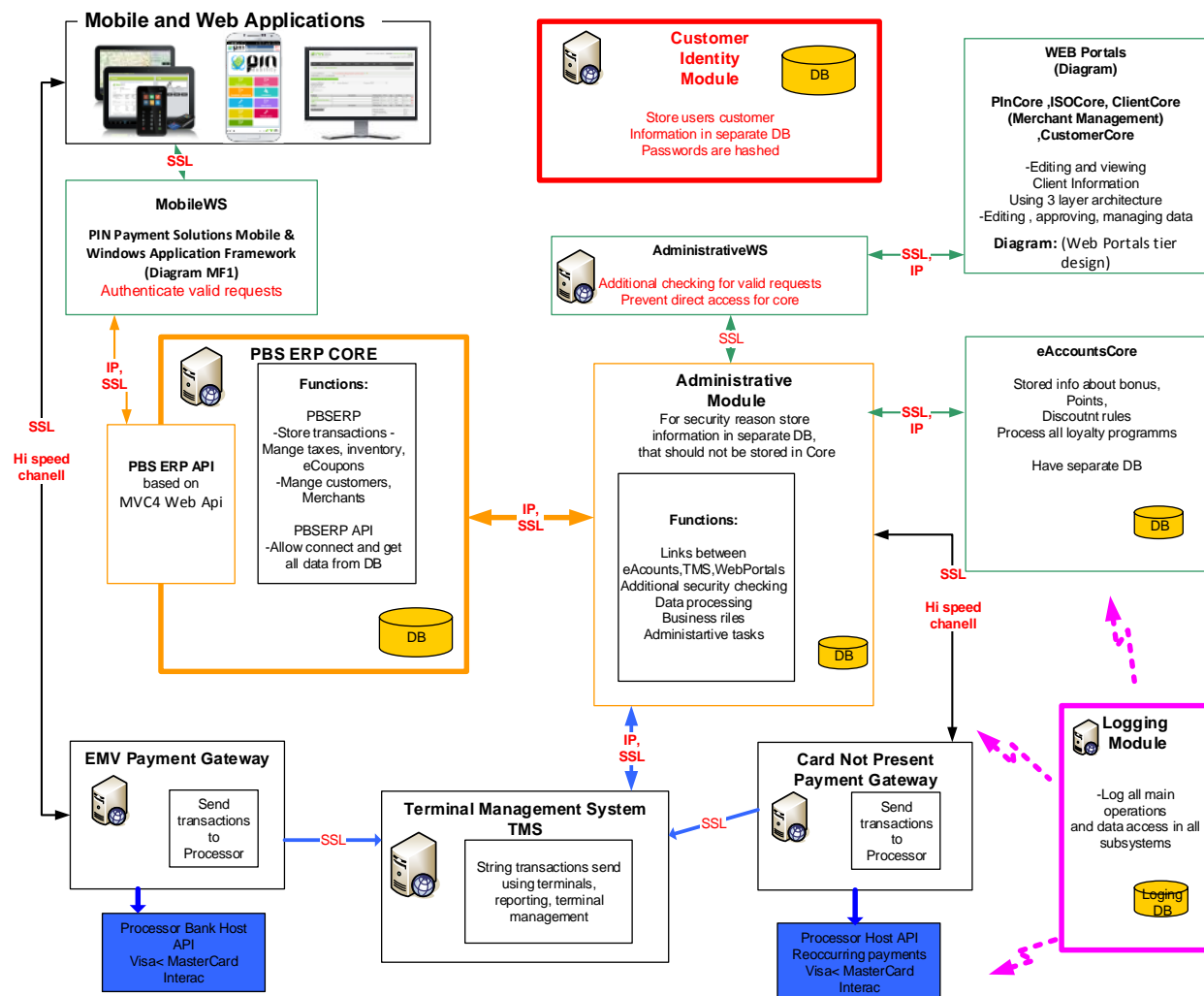
PIN Payment Solutions has developed a number of applications that are supported through Web Services layer in what we call the PIN Cloud. The Web Services can be used to support new applications that are written using a Microsoft Frameworks as well as other platforms. The following diagram outlines the message flows and connections to PIN Payment and merchant Enterprise Reporting Platform (ERP) POS systems to access inventory and send completed carts for payment with merchants.



### 3.4) Component Descriptions

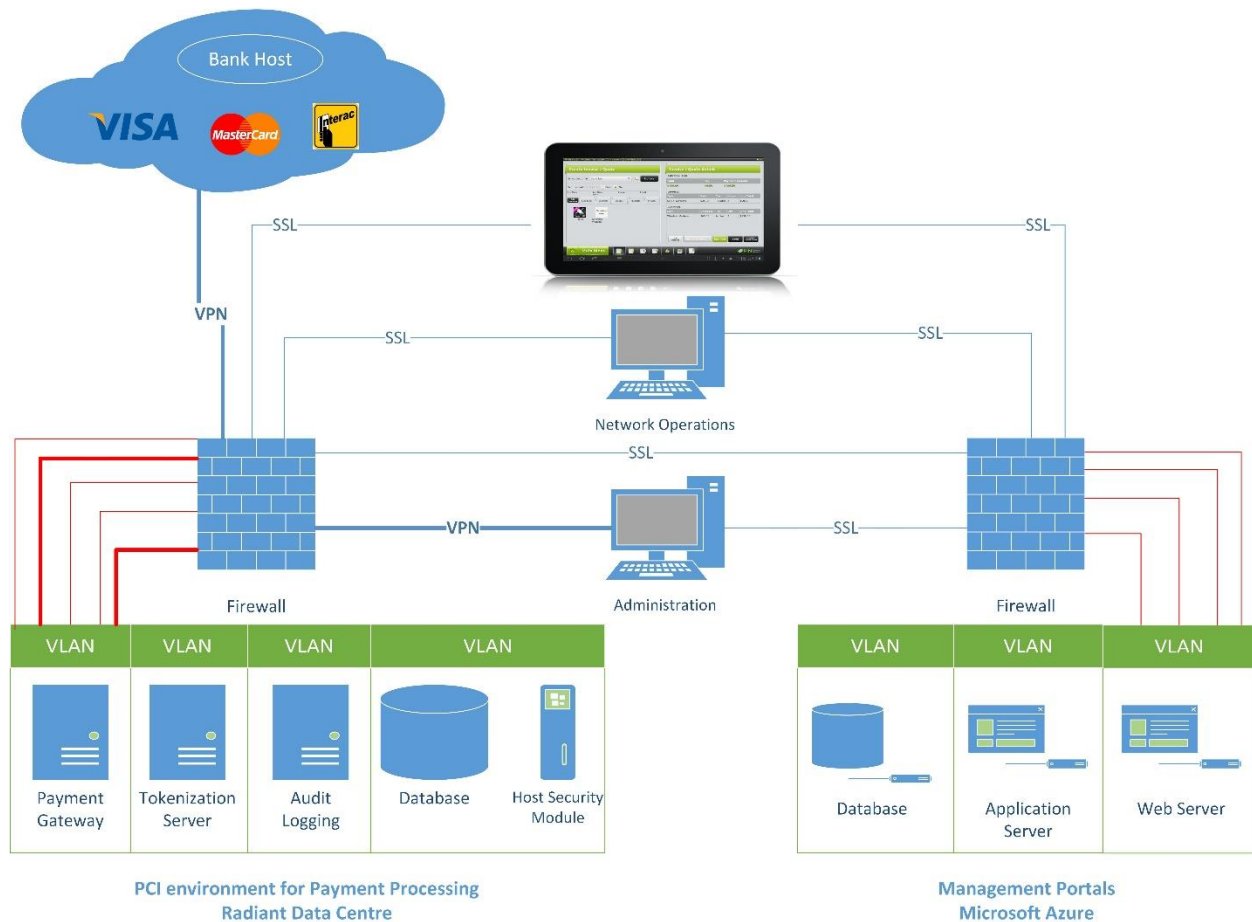
PIN Payment's hosted solution leverages Microsoft Azure Cloud Services using MS .NET and C#. The Azure environment provides burstable, expandable, and guaranteed on-demand access to system resources – scaling up automatically and ensuring System Availability performance of 99.98% or higher.

As an alternative, the solution can be deployed on a Microsoft stack using MS Server 2012, MSSQL Server 2012 and .NET Framework 4.5 as a 3 tier Architecture Model. Utilizing a widely available, supported, and consistent Microsoft framework, assures that PIN Payments will ahead of the ever changing Payments landscape while ensuring new features and functions are quickly and seamlessly introduced to the core product.



### 3.5) Infrastructure Model

This section provides an overview of the required support Architecture and underlying Technology that help make PIN “the recommend solution”. We identify the various requirements, components and technical concepts included in the solution integration.



Mobile and Web systems authenticate to Pin Terminal Management System for communication of payment to PIN Payment Gateway. A Session Token is provided by PIN Terminal Management System to access PIN Payment gateway through a shared key that is between the two systems.

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#### 4) Tokenization

PIN securely handles credit card tokenization requests originating from the Customer Portal. Requests are processed within our PCI-compliant environment hosted at Radiant Data Centre and meets the PCI tokenization guidelines as well as VISA Tokenization Best Practices.

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## 5) Network Operations

Pin provides a fully equipped 24x7x365 Network Operations Centre and engages in real-time Monitoring utilizing Microsoft's System Centre Operations Manager (SCOM). From the SCOM Dashboard, Operations staff have the tools necessary to quickly detect and action Alerts in both our Azure and Radiant environments. This includes Application, Hardware, and Operating System components. When necessary our Incident Management process is engaged and Remediation is managed to the client-specific Service Level Agreement (SLA). Monthly reports are generated and available for review.

In addition to Monitoring, Alerting, and Incident Management, the NOC engages in regular Server Patch Management utilizing Microsoft's System Centre Configuration Manager (SCCM). A monthly patch compliance report is produced and available for review.

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## 6) Licensing Options

The entire suite of PIN Software is available for use either on a licensed purchase basis or as a fully managed service.

### 6.1) Software License Purchase

PIN will license the PINCore Management Portal, Merchant Portal, Customer Portal and Mobile applications for Android and IOS for use by client at a fixed fee + annual software maintenance which includes 3<sup>rd</sup> level support and applicable upgrades. PIN provides training of client staff in the use of the Portals and provides relevant documentation. Customization of applications can be billed at a standard daily rate or negotiated based on the scope and complexity of the work.

### 6.2) Software License Purchase + Managed Service

PIN will license and operate the PINCore Management Portal, Merchant Portal, and Customer Portal on behalf of customer and provide 2<sup>nd</sup> and 3<sup>rd</sup> level support for the Mobile applications. Fees will be negotiated based on client requirements – i.e.: whether components will reside within the existing PIN Cloud or within a separate environment.

#### PIN PAYMENT SOLUTIONS

Better Business needs Better Solutions

Better Solutions for Better Business.

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