



## **Product Feature Summary**

Semnox Solutions Private Limited  
[www.semnox.com](http://www.semnox.com)

Product Feature Summary.....	1
Introduction.....	4
Architecture.....	4
Software .....	4
Hardware.....	4
Software Features.....	5
Management.....	5
Products.....	5
Refunds .....	5
Discounts.....	6
Promotions .....	6
Tickets.....	6
Tax .....	6
POS .....	7
Parafait POS.....	7
Transaction Printing.....	7
Card.....	7
Security .....	9
Attendance .....	9
Transaction Reversal.....	9
Servers.....	9
Primary Server .....	9
Wireless Dashboard .....	10
Back up .....	10
Purging.....	10
Redemption.....	10
Reports .....	11
Reports .....	11
Parafait Dashboard.....	11
Parafait Central – Internet Module .....	11
Reporting.....	11
Management.....	11
Hardware.....	12
Introduction.....	12
Components .....	12
100% Wireless .....	12
Game Machine Interface.....	12
Support for non-coin machines .....	12
Support for Turnstiles / Access control .....	13
Wristband support for Water Parks.....	13
Customer Balance Check Module .....	13
Wireless Keypad .....	13
Others .....	13
License Key .....	13
Support.....	13

Parafait Feature Summary

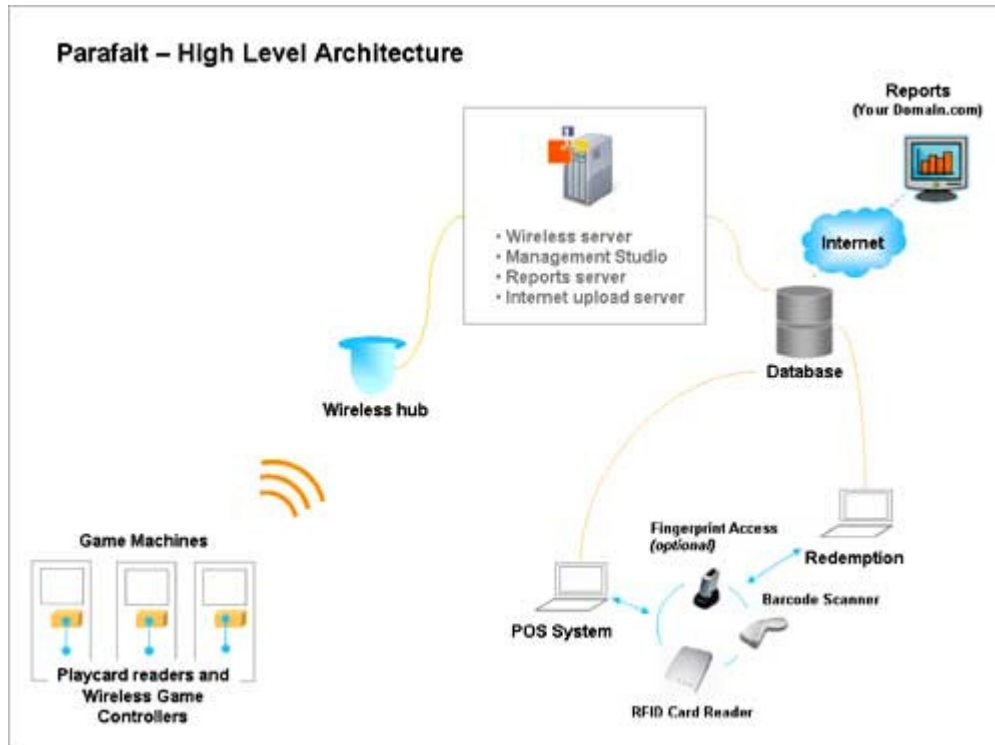
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Warranty Support..... 13  
After Warranty Support – AMC ..... 14

## Introduction

Parafait is a new generation amusement and family entertainment center suite of solutions developed by Semnox Solutions. Parafait offers extremely rich software and hardware features, with matchless flexibility and innovation. This document describes some of the key features offered by Parafait.

## Architecture



## Software

- Servers
  - Primary Server
  - Wireless Server
  - Internet Upload Server
  - Reports Server
- Management Studio
- POS
- Redemption
- Parafait Central – Internet Reporting and Management

## Hardware

- Wireless Hub
- Game Machine Readers
- Timer Devices

- Customer Balance Check Module
- Desktop RFID Card reader
- Biometric and Bar Code Scanners
- Wireless Keypad (For card payment at counters with no PC)

## Software Features

### *Management*

#### **Products**

Products are means to load cards with value attributes. A card is loaded using the POS software with products of choice. Products are defined as a combination of credits, courtesy, bonus, time, specific games, tickets etc, for a price.

Products can be either card products or non-card products. Non card products are typically food and beverages sold in food counters. Credits loaded on card could be used to purchase non-card products.

Card products allow a card to be issued or recharged with Credits, Courtesies, Bonus, Time (in minutes) or specific games with play counts. Courtesy points are usually used to give free games on specific type of games like video games or kiddie rides. Bonus points are promotional credits that could be played on any games. Time in minutes starts ticking from the time first play happens. Between 2 time plays a minimum time gap can be defined to avoid over use of time feature by multiple people using single card.

A card could also be loaded with specific games as a bundled product with play count on each game.

A card could be issued as a VIP card even on a fresh issue. This type of product could be used to convert a card into VIP card manually (may be for a price), before its time.

A card could be pre-loaded with tickets on issue or recharge.

Tickets could be controlled at a game profile level for each type of play (Credit, Courtesy, and Bonus).

Ticket could also be controlled at machine level, card level and product level.

A new card product could be defined with a face value for the card which could be refunded to customer.

Price on Products could be Tax Inclusive or Exclusive.

Products could be grouped such that they appear together on POS screen in separate tabs  
Certain POS could be excluded from using certain product groups.

#### **Refunds**

Refunds could be configured for

- a. Full refund of balance credits

## Parafait Feature Summary

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- b. Refund only face value of card
- c. No refund

### Discounts

Discounts can be given at transaction level based on various conditions:

- a. Multi-level volume discount, contingent on minimum purchase value. For e.g., we can define a 5% discount on purchases worth 500 rupees and 8% for worth 1000 rupees.
- b. Multi-level loyalty discounts could be defined based on minimum used credits. For e.g., a customer who has already played for 2,000 rupees would get a 10% off on every purchase irrespective of transaction amount
- c. These discounts could be configured to apply automatically or manually by the cashier
- d. These discounts could be configured such that manager approval is required for applying them

### Promotions

Promotions could be configured to launch for any time of hour, recurring on daily or weekly basis with an end date or for one time. Promotion rates (Even increased rates) can be configured at game, game profile (group of games), or site level. Absolute rates or % increase / decrease on both normal and VIP rates possible.

Further control on tickets, courtesy, bonus, time plays during promotion is possible.

Certain days, such as Government Holidays, could be excluded from Promotion calendar.

Outlook calendar-type user interface is very easy to use.

### Tickets

Parafait gives tremendous control for handling tickets. A Site could be configured to run using either physical tickets or e-tickets. In physical ticket mode paper tickets would be dispensed and the count would be updated for that game play making it available in reporting. There won't be any updates on customer card. In e-Ticket mode, all tickets would be updated on card.

Ticket mode could be altered at a card level (using POS software) based on customer preference.

Tickets could be disabled for certain type of game play, for e.g., bonus games or during a promotion.

### Tax

Taxes can be defined and applied to products. Tax will be calculated during a transaction, if applicable and amount included in total transaction amount. Multiple taxes can be defined.

## **POS**

### **Parafait POS**

POS software is a very user-friendly, visually self-guiding interface, wherein a card could be issued with 2 just clicks. This makes the FEC operation very productive, with minimal POS staff.

A desktop card reader is connected to POS computer. Parafait uses RFID card, which is waved at the reader. The reader sends the card number to POS which then does various operations on it.

POS allows multiple payment modes viz., cash, credit card, game card. If the mode is other than cash, additional information on credit card or game cards are to be entered. POS allows mixed mode of payment using all 3 options on a single transaction. Game card payment option accepts 4 cards on single payment.

POS displays card activities of the card swiped – all transactions, operations, games played.

Customer information could be entered using the POS.

An information tab displays other information on the card viz., games loaded, allowed products, allowed machines, ticket information. A bar chart showing various games played is also displayed.

If a customer is registered on the card, the name would be displayed on the POS making it easy for the cashier to make any interaction with him / her. If the birth date is a day before or after today, it will be highlighted so that cashier may offer the customer any special products.

An on-screen number pad is provided to enter amounts and calculate change pending.

Redemption functionality is provided on the POS as an add-on. This avoids switching to another application for redemption function. Using a single POS, both card and redemption could be managed.

On logout of POS, cashier needs to enter the status of cash, cards and tickets as shift-out parameters. There is an optional display that provides these values from system for verification. This can be switched off if FEC management doesn't want cashier to know the shift-out collection from system.

### **Transaction Printing**

POS transaction could be printed either on full size printer like a full page invoice or a bill printer such as small column-width thermal printers. In case of bill printers, there is an option of printing individual transaction line items spaced out by approximately an inch so that each item could be separately presented at counters

### **Card**

Parafait uses 125 KHz, ISO RFID cards (Thin type). Other type of cards in the same technology is clamshell cards which are thicker and not suitable for offset printing. ISO cards are ideal for multi-colored offset printing of customer logo, design etc.

## Parafait Feature Summary

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Semnox imports these cards from China including printing process during which the internal card number is printed on back of the card in hexadecimal.

A card has validity in years. If there is no activity for the duration of validity period, card will be inactive.

Cards have a VIP status when used for 'x' number of credits (bonus and time included). 'x' is configurable in the system post which card is automatically converted to VIP status. VIP status allows customers to enjoy differential rates and /or discounts on purchases.

### Card Tasks

Card Tasks supported in POS (Other than issue, recharge and refund)

- a. Transfer Card: if a card is damaged (reader not able to read), it can be transferred to another card by entering its card number manually
- b. Exchange Token for Credit – and vice versa: if any machine still require a token for playing, customer can buy them using card credits, or return them and convert them in to card credits.
- c. Load tickets: using this function tickets could be loaded manually in case of technical issues related to tickets
- d. Consolidate multiple: multiple cards with small balance amounts of credits or other points, tickets etc could be consolidated in to a single card and utilized for a game play or redemption
- e. Load multiple: if a large number of cards need to be issued with a common product, it could be accomplished in a very productive and easy way using this task
- f. Real / e-Ticket: Ticket mode of a card could be changed using this function
- g. Load bonus: bonus points could be loaded on card in case required
- h. Apply Discount: You can associate a discount with a card permanently. Any time a transaction is done with that card, the specified discount would be applied on the transaction. For .e.g, employee discount or local people discount could be always given to such customers without intervention of any operator

All these tasks could be configured to switch on / off or have manager approval enabled.

Specific card numbers could be configured to allow only specific products to be applied on them. Similarly to allow game play on specific machines could also be configured.

On the same lines, machines could be configured to allow only specific card numbers.

### Technician Cards

Technician cards can be defined by issuing them manually using Management Studio. Number of technician games allowed can be defined, and games played by these cards would be separately reported.

### Card Inventory

Inventory of cards is maintained by the system. Issued cards are tracked and consumption reported. Parafait Dashboard in Management Studio reports the recommend reorder date based on card consumption rate.

## Security

Users could be created with POS user or manager roles. POS user can only use POS software. Manager users could use the Management Studio to control various functions and run reports. Features available to manager users could also be customized by System Administrator.

A POS user could login to POS using username / password, RFID access card issued to him or using a finer print reader to ensure absolutely no misuse of authentication process.

Finger print override could be defined for specific users which will allow them to login using card or username / password. If override is not provided, users will have to login only using finger print, if site level finger print usage is mandated.

POS shift-in and shift-out time, cash, card and ticket positions are recorded for each POS login and log-out.

## Attendance

POS software is equipped with Attendance recording feature. While the POS software is “On”, registered users can swipe their user cards or finger prints to record attendance. Each swipe would be recorded as an entry. This could be reported off using Staff Attendance Report in Reports module.

## Transaction Reversal

An executed transaction could be nullified in Management Studio through a process called Transaction Reversal. A reverse transaction would be created that would nullify the financial effect of original transaction. Updates to cards involved in the original transaction would also be optionally reversed.

## Servers

### Primary Server

Parafait has a primary server which is the master server controlling other servers:

- a. Wireless Server: This server communicates with wireless hubs and individual machines, controlling card based game play and tickets. An instance of this software runs for every 16 machines
- b. Reports Server: This server run reports schedules that are configured to run pre-defined times and send the reports as email attachments to specified email ids.
- c. Data Upload Server: For remote management and reporting, Parafait has a central database and Web based application that gets data from each site periodically (say, every 5 minutes, configurable). This server synchronizes with the central server with incremental operational data from the site, and management data from both sides. Roaming card support is also implemented using this server.

Primary server has a maintenance window during which all servers are shutdown, and clean up activities are conducted. Full back up is taken, database purged and shrunk.

Primary server also has a heartbeat feature, which regularly monitors for all running servers. If any of the servers is found shutdown, it will be re-launched automatically.

### **Wireless Dashboard**

Management Studio features a Wireless Dashboard that displays the performance of wireless communication from hubs to machines. This dashboard would help monitor the performance of wireless and pin-point machines with communication issues.

### **Back up**

Parafait uses software driven back-up and recovery strategy, without depending on expensive hardware. A Full back up is taken on Primary Server shutdown and startup. This back up is moved to a back up machine which usually one of the POS machines. An incremental backup is taken periodically (say every 5 minutes, configurable), and pushed to the backup machine.

In case of a server failure, data is restored on backup machine and servers started on it using backed up data. There will be no hardware changes except changing over the wireless hubs to connect to back up machine.

### **Purging**

In order to get rid of old data or to keep the database small for enhanced performance, a feature purges the data prior a fiscal year as defined in configuration.

A manual purge option is also available in Management Studio.

### **Redemption**

Parafait Redemption application has the following features:

- a. Gift inventory Management
- b. Vendor, Location, Category support
- c. Inventory adjustments and Transfers
- d. Purchase Orders, Receipts, Auto Receipts
- e. Redemption
- f. Reports

Inventory is updated on receipt. Automatic Ordering takes into account of inventory level, and creates PO. In-bound and outbound locations take care of store room and front-desk. Location also takes care of defects.

Bar code support is provided throughout the functions. Bar codes could also be generated and printed in case gifts don't have one.

Redemption process uses a card reader to read ticket count on card. Any physical tickets could also be entered while redeeming. Multiple cards could be used for a single redemption.

## ***Reports***

### **Reports**

There are enough built-in reports on essential reporting requirements. Charts and excel downloads are supported. Custom reporting module enables on the fly report creating based on customer requirements. Semnox team will develop these reports. PDF, Bar Chart and Excel output types are supported for custom reports.

Reports could be scheduled to run on daily, weekly, monthly basis, with data included for last 'x' days. These reports would be emailed to the specified email ids on the schedule.

### **Parafait Dashboard**

Parafait Dashboard provided on Management Studio offers quick peeks into daily collection, customer statistics such as number of customers, average spending by customer, average game plays per customer etc. Cards consumption rate and recommended reorder date is computed on the fly. Average daily collection per game for a given duration is also reported in the dashboard for a quick view of machine performance.

## ***Parafait Central – Internet Module***

### **Reporting**

Parafait has a rich reporting and management module which can be accessed using simple internet connection for both reporting and some of critical management functions. Internet module is deployed on a hosted site with a database, that could be purchased of an ISP provider or own hosting. This could also be a server on corporate network accessible from FECs. Data from centers is periodically pushed to this site. Roaming cards across sites is implemented using this intermediate database.

All essential reports required are provided as built-in reports on Parafait Central as well. Besides, additional reports, bar charts could be created depending customer requirements.

### **Management**

Besides reporting, Parafait Central supports the following remote management features:

- Products
- Discounts
- Game Prices
- Promotions
- Card Management – issue new cards, update existing

All these management functions could be carried out remotely, while these functions are replicated in desired sites during the next synchronization window between the site and Parafait Central.

Security features such as Users, Roles, Report access by role are available on Parafait Central

Timezone support, so that the customer sees data in local timezone irrespective of which location he / she is viewing data in the world, is provided.

## **Hardware**

### ***Introduction***

Semnox has designed, developed, owned IP for all the hardware supplied with Parafait solution. Semnox manufactures / assembles the complete product in their units in India.

### ***Components***

#### **100% Wireless**

Parafait is a 100% wireless solution for FECs. Machines are NOT connected with wires to any hardware. They would be free to move around for repositioning within the center.

For every 16 (approximate) machines, there would be a wireless hub. Hub communicates with each machine in a round-robin way wirelessly. Each hub is connected to server computer using a CAT6 cable.

Parafait uses 2.4 GHz unlicensed ISM band for communication. Typical range is around 50 meters line of sight. This range is usually enough for a typical FEC. If machines are farther, a separate wireless hub could be used to communicate with those machines.

#### **Game Machine Interface**

Each machine will have Semnox hardware going into it, interfacing with coin and ticket operations. This hardware uses power from the game machine. The implementation is fairly non-intrusive, without affecting any hardware of the game machine. Coin and tickets operations are kept as it is to run in parallel, in case required.

Each machine will have a reader module, with a card reader and display. Normal and VIP price of the game is displayed and refreshed continuously to reflect the latest price in case of a promotional price change. Display also gives immediate feedback to customer on balance on card, card status in case of low balance, wait instructions etc.

Card is waved at the card reader instead of a swipe (unlike magnetic cards). Physical protection is provided to avoid accidental card read. A repeat card read within 'x' seconds ('x' configurable) is ignored.

Hardware that goes into each machine simulates coin mechanism, and interfaces with game machine for ticket management, while communicating with the wireless hub and server in tandem.

#### **Support for non-coin machines**

Parafait hardware is very innovative. It supports non-coin machines like PS2 /xBox etc and even completely non-automated games such as pool table. This kind of machines could be set up as timer machines with a specific 'On' duration. For e.g., a PS2 could be configured as 10 minutes game which will go 'On' when a card is swiped, and go 'Off'

after 10 minutes. The display of PS2 could be switched on or off using a timer device. Similarly, the lamp on pool table could be turned on and off using timer function.

### **Support for Turnstiles / Access control**

Parafait supports turnstile access control devices using similar technological interface like a game machine. Turnstile will be turned on to allow an entry on swipe of a card.

### **Wristband support for Water Parks**

Instead of an RFID card, wristbands are available deploying same RFID technology. In water parks where customers want convenience of “wearing” a card in stead of carrying it, wristbands could load credits in them and could be used for rides or buying food and beverages at various food counters.

### **Customer Balance Check Module**

Customers can balance on their cards using these modules that could be placed at convenient locations within an FEC or Park. This module will display all attributes loaded on card viz., credits, courtesy, bonus, time, tickets, and number of games.

### **Wireless Keypad**

Parafait has a unique feature that enables cashless payments at POS counters where there is no luxury of a PC to host POS software connected to central server. Semnox designed a keypad and a wireless module that allows a payment using a card for any amount that could entered on the keypad. Transaction is done wirelessly through the wireless hub, and an acknowledgement sent to the POS counter from the server on successful transaction.

## **Others**

### ***Parafait Payment Gateway***

Parafait supports cashless transactions or transactions using Parafait Game Card over non-Parafait POS such F&B software or Multiplex Ticketing software by providing a Payment Gateway. This Gateway could be embedded into third party software code or called externally. If integration is internal, then the transaction cross reference could be maintained within systems. If external, a transaction id would be provided by gateway for manual integration.

### ***License Key***

Parafait is protected by Copyright Laws and piracy. Software is licensed to customers using a license key. On installation, a temporary key is given which is converted to a permanent license key on completing all payment terms.

## ***Support***

### **Warranty Support**

Parafait comes with 1 year warranty against any defects or bugs in hardware and software provided by Semnox. However this excludes products not manufactured by Semnox such

## Parafait Feature Summary

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as Desktop card reader, finger print reader and Bar code reader. Replacement of hardware or fixing bugs will be done free of cost.

Semnox provides telephonic, email and remote desktop support for free for 1 year from the date of completion of installation.

If onsite support is required within 1 year of installation, Semnox will provide the service free of cost while customer pay for the travel, boarding and lodging expenses of Semnox engineer on actuals.

### **After Warranty Support – AMC**

Semnox offers AMC after 1 year of warranty support period for a fee.

AMC will cover the following:

- Telephonic, email and remote desktop support for any issues and onsite service, if required, will be included
- Hardware replacement costs, travel, boarding and lodging in case of onsite support, will be borne by customer
- Cost of AMC is typically 5% of order value per year.