

# CMC/3 Sweeps Sweepstakes System

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## System Overview

The CMC/3 Sweeps Sweepstakes system is an entertaining way of promoting your products with a finite, replenishing, sweepstakes that will continue to bring your customers back to purchase more of your product. The CMC/3 Sweeps Sweepstakes system supports numerous product types, and the client has built in functionality supporting internet café's selling internet time.

## Components

### Client

#### Overview

The client terminal is where the customer can reveal their sweepstakes entries by playing entertaining games. The client terminal also supports a user interface for an internet café where a customer can browse easily to various web sites. The customer's identity and current data are protected via the client terminal's security. The client supports the following functionality:

- Secure login for the customer by supplying a userid/password or by swiping a player card and entering a password.
- Internet Café front end support browsing various web sites
- Ability to Reserve the client terminal for a period of time
- Ability to Purchase more internet time, and in turn earn more sweepstakes points
- A multitude of entertaining games for revealing sweepstakes entries

The client terminal displays and tracks the following critical data:

- Customer login information
- Remaining internet time for the internet café
- Earned sweepstakes points that are still available for revealing sweepstakes entries
- Amount won by revealing sweepstakes entries

#### Minimum Hardware/Software requirements

- CPU: 2.8 GHz Pentium 4 (HyperThreaded) or better (preferred dual core 2.6 or higher)
- Memory: 2 Gig
- Video Card/On board video: Must support DirectX 10
- Disk Space: 40 Gig minimum
- OS: Windows XP Pro SP3 (must work with optional Card Swipe)
- Network: 10/100 Card
- Monitor: 20" (non-widescreen) preferred – but whatever works

- Keyboard/Mouse: Required
- Card Swipe (optional)
- Touch screen (optional)
- Speakers (with volume control)

## Server

### Overview

The Server is basically the brains of the entire operation. It contains the Sweepstakes Service (a service that manages all of the clients, the POS, and the Loaders), the Reporting Service (an IIS Website that controls reporting), and the Database (where all of the data is stored). The server never needs to be directly accessed (via keyboard/mouse/login), as it is there to provide the services for the rest of the system to operate. When the server is rebooted, all of these services will start up.

### *Sweepstakes Service*

The Sweepstakes Service is basically the traffic cop of the entire system. It handles all communication to and from each of the Game Clients, POS Stations, and Loader Stations. It handles the security of the system to ensure that no person is logged onto more than 1 terminal at a time. It is solely responsible for randomly choosing an entry from a specified pool based on the game played and the number of points played. It is the only component that is allowed to talk with the database, and it ensures the data integrity of the database. It serves the following functions:

- Security for the entire Sweepstakes system
  - User/password validation across all Clients, POS stations, and Loader stations
  - Encrypted communication to all devices
- Database integrity by being the only client to the database
- Sweepstakes pool entry requests and results
- Regeneration of sweepstakes pools when depleted
- Transaction management for the POS stations and Loader stations

### *Reporting Service*

The reporting service is an IIS, ASP.NET service that allows the data from the Database to be analyzed through various reports. The many dimensions of the data allow slicing of the data in many different dimensions including:

- Player
- Device
- Game Title
- Play level (points played)
- Math Model
- Time (by day/hour)
- Device Type
- Game Configuration

Various metrics are kept (data values) including:

- Internet Time remaining
- Sweepstakes points remaining
- Sweepstakes winnings
- Last Free Entries Date
- Cash In amounts
- Cash out amounts
- Comp amounts

### **Database**

The database is the data keeper of the Sweepstakes System. Some version of SQL Server is required (Enterprise, Standard, or Express), and it is configured to provide the most throughput to enhance the speed at which data is retrieved and placed. There are actually 3 different databases that are used by the Sweepstakes System:

- CMCSweeps – to store all information about the Sweepstakes games, players, and events
- CMCSecurity – to store all information about the Authorization of all parts of the system
- CMCREports – to store all information regarding the Reporting Service security and abilities

### **Minimum Hardware/Software requirements**

- CPU: 3.0 GHz dual core or better (preferred quad core 2.6 or higher)
- Memory: 2 Gig (4 Gig preferred)
- Disk Space: 80 Gig minimum (at least raid-1)
- Network: 10/100 Card
- OS: Windows Server 2003 or 2008
- SQL Server: SQL Server Standard/Enterprise
- Monitor/Keyboard/Mouse: Required (unless rack mounted)

## **Point of Sale/Admin Station (POS)**

### **Overview**

The POS Station is the operator's interface into the system. It manages all customer information, allows purchasing of products that will give sweepstakes points, allows redeeming of sweepstakes winnings, maintains employee information and shifts, and helps maintain the system through the use of some advanced functions. Generally a ticket printer and a cash drawer are connected to the POS, so transactions that involve cash can quickly and easily be tendered and receipts can be printed. The POS also maintains different levels of functionality based on the employee level using the POS. A detailed list of the functions of the POS follows:

- Customer management (including creating new, modifying existing, changing passwords)
- Card/User ID management per Customer
- Purchasing of Sweepstakes promoted products

- Redemption of Sweepstakes winnings
- Tracking and Entitling Free Sweepstakes entries
- Transactional history for Customers
- Administration functions including overriding transactions
- System maintenance functions including Client terminal management and Logout
- Employee management including Shift management and employee permission levels
- Cash drawer functions including No Sale, and loading and withdrawing of cash
- Loader functions including loading and withdrawing of cash
- Printed receipts for Purchases, Redemptions, and other reports

### **Minimum Hardware/Software requirements**

- CPU: 2.4 GHz Pentium 4 or better (preferred dual core 2.0 or higher)
- Memory: 1 Gig
- Disk Space: 10 Gig minimum
- OS: Windows XP Pro SP3 (must work with ticket printers and cash drawer)
- Network: 10/100 Card
- Monitor: 20" (non-widescreen) preferred – but whatever works
- Keyboard/Mouse: Required
- Card Swipe (optional)
- Touch screen (optional)
- Ticket printer: Epson preferred (can work with any as long as windows can print to it) (optional)
- Cash Drawer: Anything supported by Ticket Printer (optional)

## **Loader Station**

### **Overview**

The Loader Station is basically an unattended simplified POS that the customer can use to purchase more of the product (such as internet time) without having to go to the POS. It supports the following basic functions (similar to the POS):

- Authentication of the customer by use of Card/User ID
- Purchasing of product by insertion of money into the Bill Acceptor
- Ability to print receipts for the transaction

### **Minimum Hardware/Software requirements**

- CPU: 2.4 GHz Pentium 4 or better (preferred dual core 2.0 or higher)
- Memory: 1 Gig
- Video Card/On board video: Must support DirectX 10
- Disk Space: 10 Gig minimum
- OS: Windows XP Pro SP3 (must work with Bill Acceptor/Card Swipe)
- Network: 10/100 Card

- Monitor – Touch Screen (optional)
- Bill Acceptor that supports the JCM WBA-ID 003 protocol
- Keyboard/Mouse (optional)
- Card Swipe (optional)
- Ticket printer (optional)

## Other Equipment

- Switches/Hubs (1 large – x smaller depending on facility setup)
- DHCP router (for setup and possibly for other computers connecting)
- UPS battery backups
- Hardware Firewall (optional – but highly recommended)

## Basis of Operations

### Games

The Games provide an entertaining way to find out what you have won from the Sweepstakes. The Games are just providing a graphical representation of the amount won; they do not influence what is won – this has been determined by the sweepstakes entry that was revealed. There are many games to choose from to reveal your sweepstakes entries. Similar games (ones that have the same payouts) are grouped together into Math Models.

### Math Models

Math models are groups of games that have the same chances of winning and that have the same payouts for the winning entries. As it will be described later, these games that share the same math models also share the same Finite Pools. Each math model defines a set of Finite Pools that the customer, when revealing their sweepstakes entries, can choose from. The customer chooses which pool by the number of Sweepstakes Points they wish to play.

### Sweepstakes Points

Sweepstakes Points allow the customer to choose which of the Finite Pools the customer wishes to pull their sweepstakes entries from. Higher value Finite Pools (ones where you may win larger sweepstakes prizes) will require more Sweepstakes Points to play. Lower value Finite Pools (ones where you may win smaller sweepstakes prizes) will require less Sweepstakes Points to play. Sweepstakes Points allow the customer, at the time they wish to reveal sweepstakes entries, to choose which Finite Pool they wish to play. It is analogous to a person walking up to a counter of different rolls (and denominations) of scratch off tickets, and deciding which roll to spend his or her money on. One roll may cost more, but you may be able to win bigger prizes. Another roll might cost less (and you could get more tickets), but the prizes wouldn't be so big.

### Finite Pools

The Finite Pools are the actual pools, filled with entries of winners and losers, for each of the sweepstakes offered at the location. The finite pools, by definition, are finite, which means that there is

a predetermined number of winning entries and losing entries. Once an entry is chosen, it cannot be chosen again. The Sweepstakes system can replenish a Finite Pool only once all of the entries have been revealed. Each Finite Pool directly maps to a Math Model and a choice of what level of Sweepstakes Points you wish to play. Any game that is a part of that Math Model will map to the same Finite Pool if the customer plays the same Sweepstakes Points.

## Drawing an Entry

The basic operation of the system (when revealing sweepstakes entries) is the following:

1. Customer chooses a Game that he/she wishes to reveal their entries in an entertaining fashion
2. Customer chooses the amount of Sweepstakes Points they wish to play
3. Customer presses the "Reveal" button on the Game

### Behind the Scenes

4. Client sends a message to the Server (Sweepstakes Service) that the customer wants to reveal
  - a. By the customer choosing a Game and the Sweepstakes points played, the Math Model and the exact Finite Pool has been determined
5. The Sweepstakes Service randomly pulls a sweepstakes entry from the chosen Finite Pool
  - a. The entry is marked as played and cannot be chosen again
  - b. Winning values are updated in the DB for that customer as well as Sweepstakes Points played
6. Server (Sweepstakes Service) sends message to client with Sweepstakes Entry's value

### Back at the Game

7. Game receives Value to display to customer
8. Game chooses best way to display Value to customer (there can be many different ways to display the same winning entry value in a game)
9. Customer see entertaining way of displaying Value
10. Game meters are adjusted to reflect new Sweepstakes Points values and Total Win values