Case Study

Icreon

Bingo
Online Bingo Club

Our client operates Bingo clubs throughout the United Kingdom. They wanted to increase their member base by offering the opportunity to play and win Bingo cash prizes online, to the ever increasing online gaming community. They wanted a web based solution that would enable multiple players, from across the globe, to take part and play games, scheduled by the game administrators, from the convenience of their homes. Based on their requirements, Icreon delivered an online application that enabled administrators to create and manage bingo gaming rooms, and players to register with the club, make deposits and play the different versions of Bingo in a gaming room of their choice.

Customer Profile

Our client is a UK based company that operates Bingo clubs all across the United Kingdom.

Business Requirements

Our client required a solution that would enable them to manage and operate an online Bingo club. The solution was required to provide support for different versions of the game. Provisions were required that would enable game administrators to create custom gaming rooms for different Bingo versions and schedule the gameplay. Facilities to incorporate promotional offers and events such as loyalty points, raffle, free tickets etc were required to be built into the solution. Functionalities enabling club administrators to manage and control the advertisements and pop-ups appearing on the website were required.

A solution for operating and managing a multiplayer online Bingo club

Icreon developed the online Bingo club using Flash and PHP. The front-end game module is a flash client which sends and receives data from the flash server using the XMLSocket Object. The flash server, in turn, uses a secure HTTPS connection to send and receive data from the PHP layer. All player, game and transaction related data are stored in the database.

Users can create personal accounts and register their credit cards, to make initial deposits (the maximum and minimum amount of which can be set by the administrator), with the website. The deposit in the account can be used by the player to purchase tickets and can be funded by the player as and when required. Winnings, if any, are directly deposited to the account from where it can be withdrawn at any point of time. On registration, players are assigned lucky loot accounts (the luck loot amount is preset by the administrator) which can be used by them, to purchase tickets,

when they run out of funds. Loyalty points are assigned to players based on their spendings (spending amounts can be set by the administrator) in the club and these points can be redeemed against ticket purchase. Players can select from several different game rooms and can chose and purchase multiple tickets to play the game.

In the game, players receive tickets with random numbers (between 1-90 in case of 90 ball Bingo and between 1-75 in case of 75 ball Bingo) displayed in a 9x3 (90 ball Bingo) or a 5x5 (75 ball Bingo) grid, depending on the Bingo version chosen. The application is designed to call out numbers randomly at specific intervals (set by the administrator). The called numbers are highlighted on the calling board. Players can either manually mark the called numbers off their tickets or can opt for the auto daub option. A ticket approaching Bingo is highlighted and the numbers of calls required to achieve the same is displayed. The first player to achieve the winning combinations (rules, not results, defined and set by the administrator) is awarded the prize i.e. the relevant winning amount is credited to his/her account. In case multiple players achieve winning combinations, the prize money is distributed evenly among them. Players can purchase or cancel tickets for games that have been scheduled for a future date.

Extensive security and safety features have been built into the application. Only authorized users have access to the application (both at the front end as well as the backend). An IP check is performed to ensure that the flash server request to PHP comes from a defined IP address thereby preventing unauthorized access to the user and transaction data. All gameplays are simulations - therefore if a player is unable to complete a game after purchasing the tickets, due to technical problems such as disconnection, system crash etc, the winnings (if the player has the winning ticket) are automatically deposited to his/her account. In cases when tickets have been purchased by the player but the game could not be continued due to server or application problems, the ticket money is refunded to the player.

The web solution devised by Icreon has been divided into two main modules:

Main Website
Users can access and play Bingo online, through the main website. They can browse through details of the Club, view instructions on how to play, read the FAQs and subscribe to newsletters.

Players can login and play Bingo online. Several gameplay features have been built into the application. These include options to sort the purchased tickets (on the basis of numbers or strips), turn the audio track on/off, set the auto-daub option, view account balance, lucky loot balance, prize pattern, automatic prize breakdown (based on total tickets purchased for the game) and view a countdown timer to the next game. Provisions have been provided enabling a player to generate tickets that contain the numbers specified by them.

An integrated chat module is available enabling players to interact with each other during game play. Quick text (predefined words) and options to include emoticons in the messages have been provided.

Administrator Module
The administrator module operates and manages the online Bingo club. Administrators can create and set access levels for other back-end users. Based on the access levels set, users can perform the following tasks:

- **Game Setup:** Game administrators can create rooms for different Bingo versions i.e. 90 balls and 75 balls and setup and schedule games within them by specifying the date and time range

during which the game will be available for play. The callout speed, prize pattern and ticket price, amount for the total prize fund (as a percentage of total takings) can be set for individual games. Progressive jackpot can be brought into play by specifying the amount and the number of calls within which the Bingo has to be achieved.

- **Offer Promotions:** In order to make the gameplay more exciting, administrators can offer various predefined promotions, with individual games, such as free tickets, fixed prize fund (prize fund is not dependent on the total takings), fixed entry (each player has to buy a fixed number of tickets), and call related jackpot options (depending on the call numbers reducing jackpot amounts can be set).

  The lucky loot account (amount that a player can use over and above his account balance) and the awarding of loyalty points on the basis of spendings can be set commonly for all players. Promotional gaming events can be created wherein the game winnings are deposited to the player's lucky loot or loyalty points. Room Raffles can be organized on a daily, weekly, fortnightly or monthly basis and the defined raffle prize amount can be allocated either towards lucky loot, loyalty points or towards special prizes. Options for players to earn loyalty points by introducing friends to the bingo club can be set.

- **Manage Player Accounts:** Administrators can view details of all the registered players and have the authority to adjust a player's luck loot, loyalty points and account balance. The detailed transaction history (opening and closing balance, debit and credit amounts etc) of each player, during a specified time period, can be viewed by the administrator.

- **Chat Management:** The administrator can create and manage chat rooms. They can create a list of banned words; messages entered by players can be verified against this list. Administrators can ban players from a chat room and can view the message archive of a room.

- **Banner Management:** The banner management module can be used to upload and control the appearance of banner and pop up ads appearing on the website. Administrators can specify the date and time range, upload the advertisement/popup file and select the webpage where the advertisement will be displayed.

- **Report Generation:** Extensive reports can be viewed online or downloaded by the administrator. The reports that can be generated include daily business, transaction history, player value, registration summary, withdrawal reports etc.
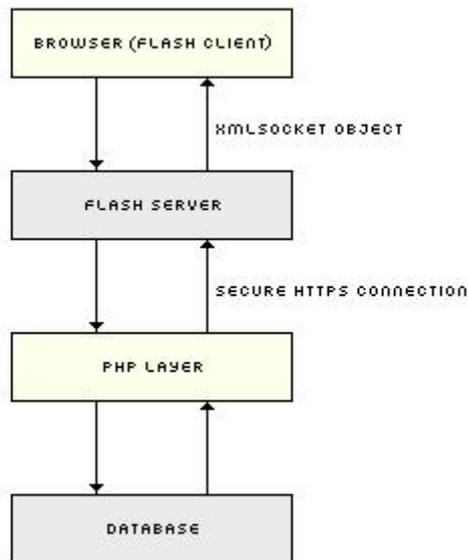
Architecture

Technologies used in developing this application are:

Summary

The feature rich Bingo application developed by Icreon has enabled the client to generate revenue and increase their club membership by attracting a larger number of users from the online gaming community which in turn enabled them to offer larger jackpots and prize funds. The solution enables club members to play Bingo at any time and from any location convenient to them. In addition to playing Bingo online, features such as chat rooms etc have enabled the client to create and foster a sense of community feeling among players. Using the back-end modules administrators can easily manage the functioning of the online club. Detailed reports of transactions enable administrators to review and monitor club performance and financial status.