

# SYSTEM DESCRIPTION

## General Overview

Purpose

This document has the purpose to give a brief understanding of the general overview of Proactive Gaming’s gambling system.

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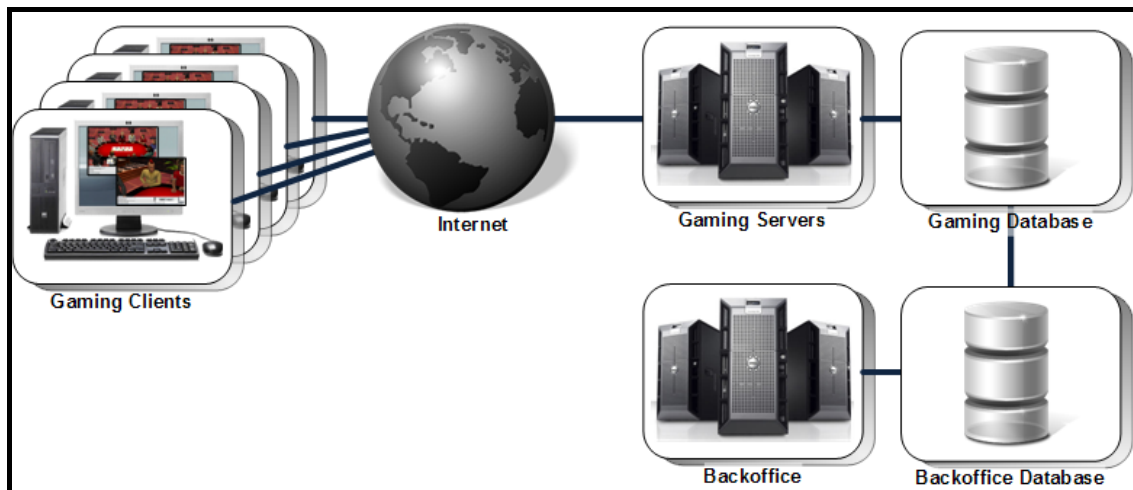
## **1. Terminology**

API = Application Programming Interface  
DB = Database  
DoS = Denial of Service  
DDoS = Distributed Denial of Service  
PC = Personal Computer  
RNG = Random Number Generator

## 2. The Gaming System.

The Proactive Gaming's gaming system consists of the following **basic** components:

- 1) Downloadable gaming clients, where players play for example 3D poker.
- 2) Gaming servers, where all logic of the game is executed.
- 3) Gaming database, where all information of players and their activities are stored.
- 4) Back Office, where the information stored in the database can be retrieved, reviewed and analyzed.
- 5) Security.



**Picture 1 – Proactive Gaming System.**

### 2.1. Proactive Gaming's Client Software

The downloadable software is called a "gaming client". The gaming client will be downloaded by the visitor at the customer's website.



**Picture 2 – Download links.**

When the visitor has downloaded the gaming client, the visitor can create his/her own character in the game and play poker, using real money or play money.



**Picture 3 – Character creation.**

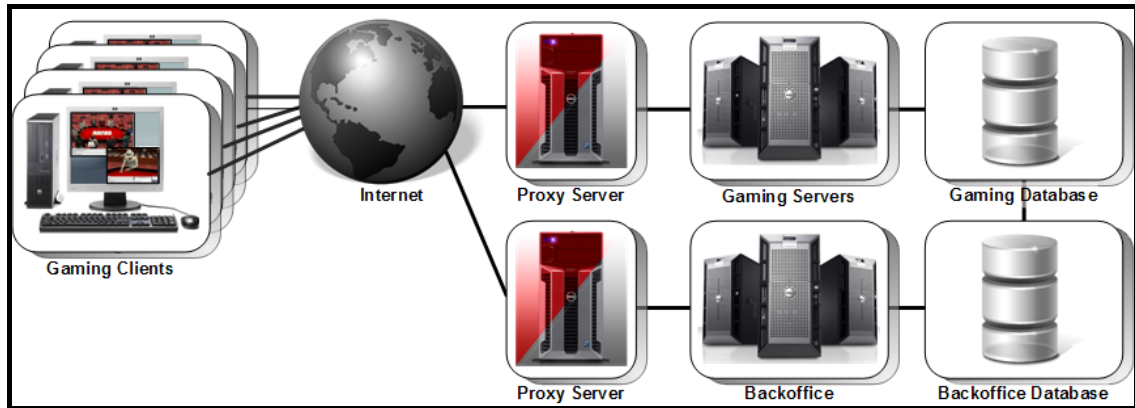
The gaming client doesn't necessary need to be installed on a computer, even if all gaming clients today only support PCs. The gaming client could be installed on for example a terminal, on a TV or on mobile phones. As well as poker games, the gaming client can also host other games as lottery tickets, bingo (not yet available) and casino games (not yet available).



**Picture 4 – Possible variants of Gaming Client.**

**2.2. Proactive Gaming’s Servers**

All gaming clients are connected to Proactive Gaming’s server system where all game logic is executed for security reasons. (If any game logic would be available in the downloadable software there would be a risk of players hacking their local gaming client in order to cheat).

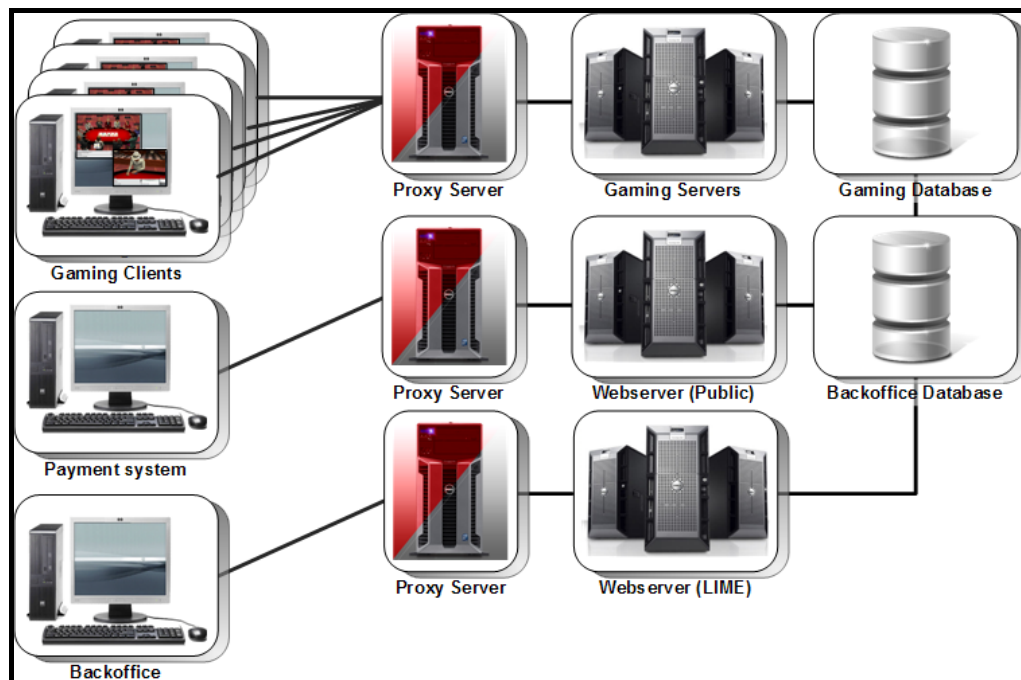


**Picture 5 – Map of Proactive Gaming server system.**

The server system is located in a secure hosting center with a good bandwidth to support thousands and thousands of gaming clients connecting to the same server system.

**2.3. Map of Proactive Gaming’s Gaming System**

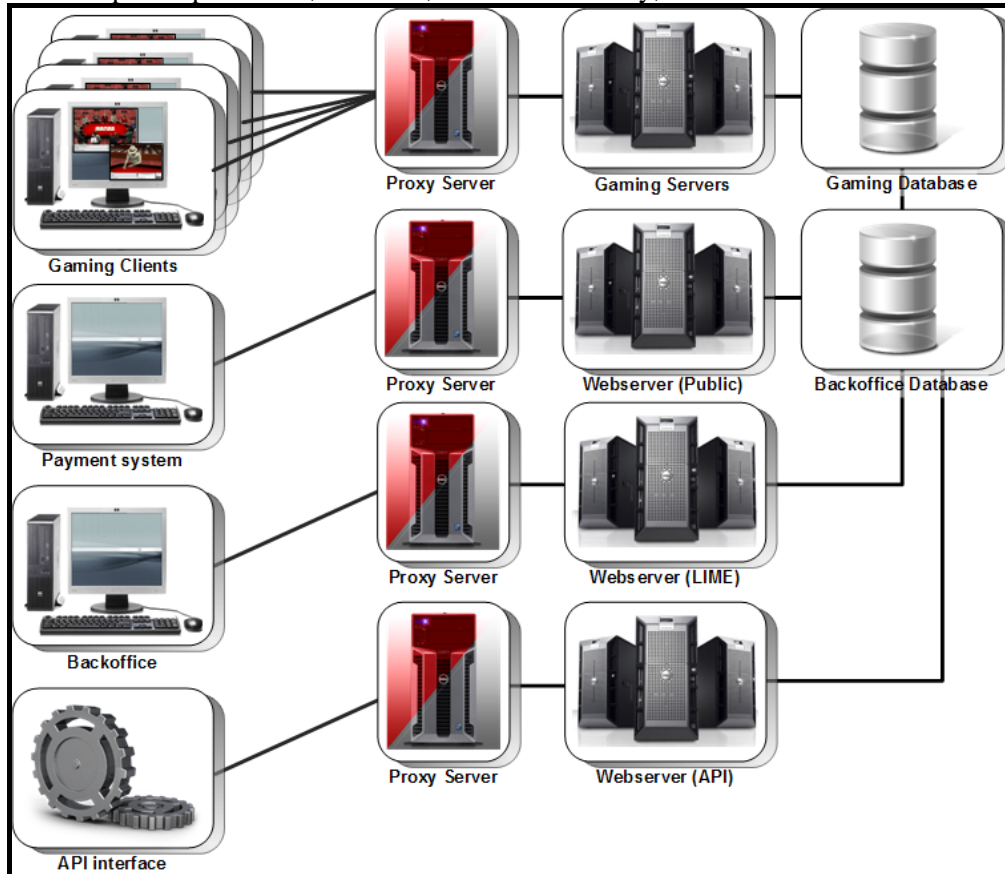
Due to security and to keep high performance, the Back Office in Proactive Gaming’s Server System consist of an own copy of the main database.



**Picture 6 – Map of Proactive Gaming’s Gaming System**

**2.4. API**

An API exists where customers have the chance to connect Proactive Gaming’s system with for example a Sportsbook, a Casino, a web-community, etc.



**Picture 7 – API interface**

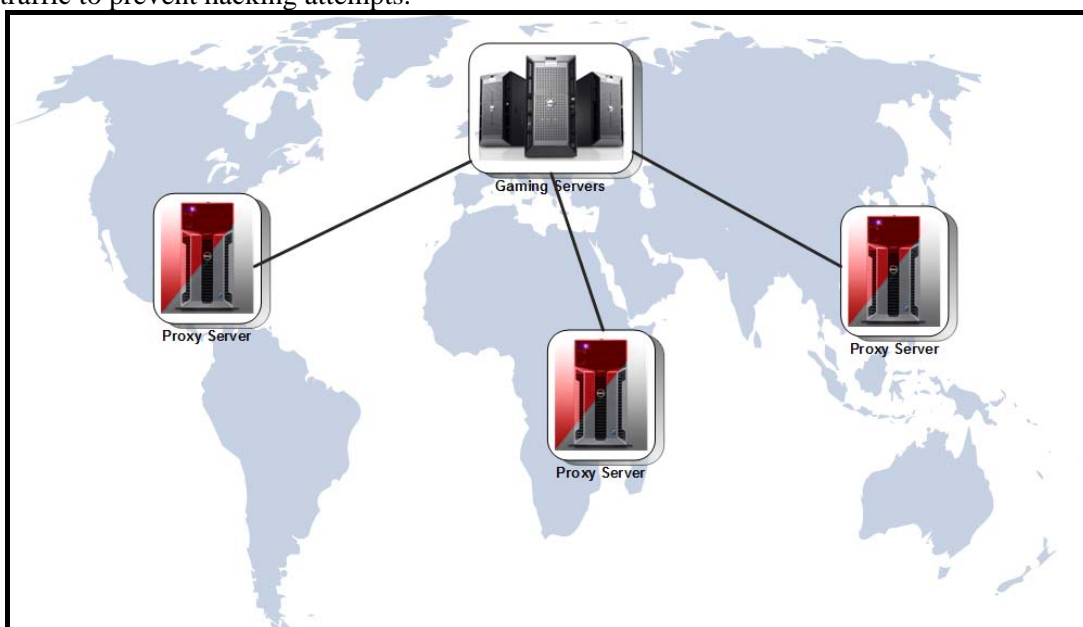
## 2.5. Security

❖ Proxy servers at different geographical locations,	❖ Replication of data,	❖ Disk mirroring,
❖ Encryption,	❖ Backup systems,	❖ Fully redundant server hardware,
❖ Firewalls,	❖ UPS,	❖ Warnings systems (SMS, e-mail, LCD),

**Picture 8 – Security.**

### 2.5.1. Proxy servers

To keep the Server System secure from DDoS attacks and hackers, Proxy servers has been installed. The Proxy servers hide the actual location of the Server System and evaluate all traffic to prevent hacking attempts.



**Picture 9 – Proxy servers**

If a DDoS attack occurs on one of Proactive Gaming's Proxy servers, the traffic is simply rerouted to another Proxy server installed in a hosting center in a different geographical location.

A number of hosting centers at different geographical locations exists.

**2.5.2. Firewalls and secure connections**

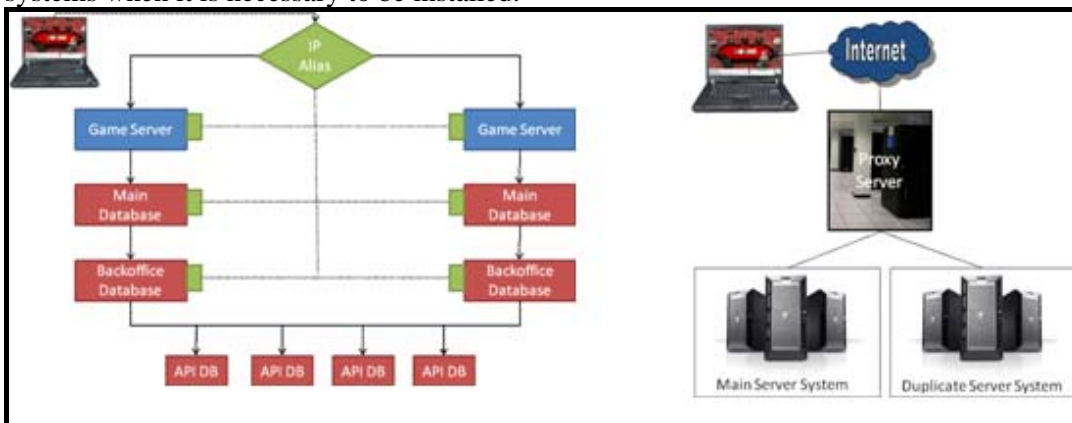
Firewalls between all servers and secure connections keep the system secure from intruders. All traffic is logged and surveillance system monitors any suspect behavior. Proactive Gaming’s technicians are alerted via e-mail and SMS, but all information is constantly available on displays at the office and on internal websites.



**Picture 10 – Logging and surveillance**

**2.5.3. Flexibility for Robustness**

For robustness and failover, the system is built to be flexible in order to support duplicate systems when it is necessary to be installed:



**Picture 11 - Flexibility for Robustness**

## 2.6. Certified RNG

Proactive Gaming's RNG (Random Number Generator) has been certified by Statens Kriminaltekniska Laboratorium (an organization within the Swedish police). The certification was made in February 2009.



## 3. Revision History

Revision Number	Date	Author	Revisions
PA1	2009-07-27	Mattias Andersson	First version.
A	2009-07-30	Mattias Andersson	Updated version.
B	2010-05-10	Mikael Carlsson	Document revised