Mafia Management System

Problem Statement

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Date	Version	Reason for Change	Edited By
12/20/2012	1.0	First Draft	Dan Schepers
12/20/2012	1.1	Second Draft	Dan Schepers, Robert Fendricks, Frank Huang
2/8/2013	2.0	First Change after coding	Dan Schepers, Robert Fendricks

1 Executive Summary

The purpose of this document is to describe the problem that the Mafia Management System will solve, and to give high level details about how the solution will work. In order to facilitate the latter goal, an Entity Relationship diagram has been created. It will be submitted at the same time as this document.

The mafia business has been declining vastly since the glory days of the 20s. Some blame this on increased police pressure [1], but the makers of the Mafia Management System believe differently. We believe that the mafia is suffering from a lack of organization and structure, leading to sloppy and even chaotic business dealings. This poor business practice has led to a loss of profits for the mafia. We propose the Mafia Management System to fix this problem.

2 Introduction

This document is the first of several detailing the Mafia Management System. It also includes an Entity Relationship diagram. In the future, we will provide a relational schema, a security analysis, some periodic reports, and a final presentation. The rest of this document will provide an overview of the proposed system, its requirements, and touch briefly on its implementation. There will be periodic reports on the progress of implementing this system. Finally, the end of quarter presentation will demonstrate a working Mafia Management System.

3   High Level Problem Summary

3.1 Elevator Statement

While we aren't sure what kind of business management system the Mafia currently uses, it's clear that it isn't working. We propose an elegant system that uses databases to track various parts of the Mafia's empire, including: Families, Employees, Products, Projects, Turfs, and Prisons. The Mafia Management System will also track the interactions between these things. This will increase the profitability of the Mafia and return it to the stature it had in its prime.

3.2 Primary Success Criteria

Our primary goal is to provide a way for the Mafia to track their projects. These projects include hits, selling drugs, selling guns, fight clubs, prison breaks, loan sharking, and money laundering. Tracking these projects will involve all of the entities mentioned in Section 3.1.

3.3 Scope

3.3.1 Within Scope
1. Businesses (legitimate and fronts)
2. Turf
3. Enemy Families

3.3.2 Out of Scope
1. Actual prices of drugs
2. Actual Mafia territory

4 Detailed Problem Statement

4.1 Function

This will be a client server application that accesses user data from a remote server and collects data from the user. This will be accessed through a web browser.

4.2 Form

4.2.1 Availability

- Web based, for convenient access while on business trips, or during emergencies.

4.2.2 Usability

- Fast response times and lookup times

- Easy to learn and use

- Well defined and intuitive interface

- Useful help text and error messages

- Compatible with latest versions of Firefox

4.2.3 Performance

- Uptime will exceed 98%

- Can support 30 users simultaneously

4.2.4 Security

- Security of the database is extremely important. A flaw in security could ruin a mafia family. Our system will support:
  - SHA1 to encrypt the login
  - Passwords that have a security restriction
- No updates or changes will be allowed after the stable release, to negate probability of infiltration

4.2.5 Maintainability

- The software will be easy to maintain.
- There will be technicians to manage external hardware, such as managing the server that the data resides on.
- The head of the mafia family will be the only administrator

4.3 Economy

4.3.1 Marketability

The Mafia is a long standing association of families who often deal with less than legal activities. These families have many dealings that they must keep track of, and up to now they have had to use physical media to keep records of their activities. However, physical media is prone to being stolen or easily found by moles. The only reliable way to safeguard this archaic approach to record-keeping is by using clunky safes or hiring unpredictable brutes. This system offers a modern-day and easy approach to securing this sensitive data, and will increase the efficiency at which the Mafia operates.

4.4 Time

4.4.1 Historical

The American Mafia, an Italian-American organized-crime network with operations in cities across the United States, particularly New York and Chicago, rose to power through its success in the illicit liquor trade during the 1920s Prohibition era. After Prohibition, the Mafia moved into other criminal ventures, from drug trafficking to illegal gambling, while also infiltrating labor unions and legitimate businesses such as construction and New York's garment industry. [2]

4.4.2 Current

Today's Mafia families no longer perform the ornate induction ceremonies in which a card depicting a saint is burned and a gun is displayed. They've ditched the saint and the gun.

Still, they induct new members when old ones die, and they find new ways to steal.

Several families, for instance, got in on the housing boom of 2002-2007 through corrupt construction companies and unions, court papers and sources say. [3]

4.4.3 Future

It's difficult to say what the future holds for the mob, though one can be sure that its presence will always be felt. The Internet might be the next frontier for the mafia to explore. According to Cisco Security Products annual midyear global security report, the Internet provides an easy way for organized crime outfits to mimic legitimate businesses -similar to what the Italians are currently doing. The Internet also provides an easy way for families to communicate with each other and other organized crime outfits. [4]

5 Key Stakeholders

Name	Role
Sriram Mohan	Project Advisor
Dan Schepers	Project Team
Frank Huang	Project Team
Robert Fendricks	Project Team
The Mafia	End Users
Matteo Messina Denaro [5]	Beta Tester, End User
Giovanni Brusca [5]	Beta Tester, End User

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7 Glossary

SHA1 - Source Hash Algorithm, an algorithm developed by the NSA for encrypting and hashing data.

Entity-Relationship Diagram

Project entity attributes: Hours_Worked, Description, Project_Id, Name

Works on relationship (m:n) connects Project to Works For

Enemy of relationship (m:n) on Family

Family entity attributes: Name

Works For relationship (1:n) connects Family to Employee

Employee entity attributes: Address, Date_Of_Birth, Name, Emp_Id

Head Of relationship (1:1) connects Family to Employee

Controls relationship (1:n) connects Family to Turf

Owns relationship (1:n) connects Family to Business

Maybe In relationship (n:1) connects Employee to Prison

Turf entity

Location entity attributes: City, State, Region, Mayor

LocatedIn relationship (1:n) connects Turf to Business

Business entity attributes: Legit, Revenue, ID, Name

Sells relationship (m:n) connects Business to Product

Product entity attributes: ID, Name, Manf Cost, Sale Price

Prison entity attributes: ID, Name, Warden, No_Of_Guards

LocatedIn relationship (1:n) connects Turf to Prison