**Criminal Management System: Software Engineering**

Software Requirements Specification

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**Purpose**

The purpose of this Software Requirements Specification (SRS) document is to describe the overall behavior of Criminal Management System. This SRS defines and describes the operations, performance, and quality assurance requirements of the CMS that is to be developed. This document also describes the nonfunctional requirements. It also describes the design constraints and technologies that are to be considered when the system is to be designed, and other factors necessary to provide a complete description of the requirements for the system. This Software Requirements Specification (SRS) captures the complete software requirements for the system. Requirements described in this document will be used as guidelines to develop the Criminal Management System.

**Scope**

The Criminal Registration System is supposed to have the following features.
1. Registration of Police officers
2. Registration of Criminals
3. Registration of crimes
4. Status tracking of Crimes  local/zonal/state/central
5. Report Generation on crimes -local/zonal/state/central

**Assumptions and Dependencies**

1. A state is divided into zones and each zone has many number of police stations.
2. Each police station is handled by a group of Rank 4 officers.
3. Each Zone will be handled by a Rank 3 officer.
4. All Rank 4 Officers report to Rank 3 Officers.
5. All Zones under a state will be managed by Rank 2 officers.
6. All Rank3 officers report to Rank2 officers.
7. The Rank2 ,Rank3 and Rank4 officers will be appointed by the Home Minister for State.
8. Rank1 Officers coordinate with enforcement agencies in all states.
9. Cabinet Minister for Home Affairs will be appointed Rank1 officers.

**References**

1. http://en.wikipedia.org/wiki/List\_of\_police\_ranks\_in\_India
2. http://blog.ficci.com/rising-crime-india/1028/
3. http://en.wikipedia.org/wiki/Mumbai\_Police

**Functional Requirements**

User Interface

1. The system will provide GUI for the users.
2. The users will be able to access the system using their web browsers

Hardware Interface

1. The system will have an interface with the finger print scanner
2. The system will have an interface with the digital camera to capture images of the criminals and will be used for face recognition.

Software Interface

1. The system will have an interface with the Voter ID system for validation of voter ids

Communication Interface

1. The system will use HTTPS protocol for secure transfer of information between the
client and the web server

**Non-Functional Requirements**

Usability

1. The system shall allow the users to access the system from the Internet using
HTML or its derivative technologies like XML/CSS. The system uses a web browser as
an interface.
2. Online help will be available for the system.
3. The end users will be able to able to adapt to the system with a minimum training of 40 hours.
4. Key board short cuts will be available for all functions of the system.
5. The police officers can configure the system to view the pages in the following regional languages-Hindi, Tamil, Telugu, Kannada, Malayalam.

Security

1. Police officers will be provided access to the system after they are registered by their recruitment officers.
2. Police officers will be logging into the system using their ID and one time password emailed to them.
3. On login they will be asked to change their passwords.
4. Passwords must have a minimum length of 8 characters.
5. Passwords must meet at least 3 out of the 4 requirements for quality:
o at least 1 lower case letter
o at least 1 upper case letter
o at least 1 number
o At least 1 special character (?, \*, %)
6. Password should not contain the users first name, middle name, last name, or username.
7. Passwords on sensitive IT systems must be changed, at a minimum, every 90 days.
8. System should timeout when there is no activity for five minutes.

Performance

1. The response time will be less than 8 seconds for 95% requests made to the system.

Capacity

1. Throughput: The application shall be able to successfully handle 500 requests per hour.
2. Storage: Hard disk space 
450 GB  Content
50 GB  Transaction Logs

Recovery

1. The system will be recovered within four hours from the down time.
2. A full back up of CMS data will be done on tapes every day.
3. The backup is scheduled to run automatically at 10 pm daily.
4. The backup tapes when removed from the server are stored securely in a locked fireproof media safe at DII Office in Delhi.

Availability

1. The system will be available on all days 24\*7.

Reliability

1. The mean time between failures for the system will be 1000 hours.

Maintainability

1. The Mean Time To Recovery (MTTR) shall not exceed one per day.

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Potability

1. The system will run on windows 95/98/2000/NT/XP/Vista/Windows7.