Functional Requirements

1. The CMS must provide real-time status updates on the map of Singapore by displaying the latest cases in different ways based on seriousness and severity of the case.

    1.1   Cases which have rating of 4 and above are shown on the overview of the map based on region and indications are shown with color code based on the severity of the crisis in that particular region.

    1.2   Cases which have rating of below 4 are shown on the exact location of the map once the user zooms in.

2. The CMS must display the cases based on category, status and severity.

    2.1.   Category of the cases using logos on the map.

    2.2.   Status of the cases in the form of "pending", "confirmed", "crisis".

    2.3.   Severity of the cases in the rating form from 1 to 5 after the status changed from "pending" to "confirmed".

3. The CMS must allow the call operator to update the category, status and severity of the cases at any point of time.

4. The CMS must display real-time weather conditions using symbols and temperature in degree celsius for every region.

    4.1.   Legend of the symbols must be shown below the map to let the user know what each symbol represents.

5. The CMS must display the haze information in PSI.

6. The CMS must display current date and time of Singapore.

7. The CMS must provide updates to the public through SMS and social media such as Facebook and twitter once the case has been categorised as a crisis or resolved.

8. The CMS must provide a platform for the call center operators to enter the requested information provided by the caller and immediately update on the map.

9. The CMS must show cases happening around that particular location when the user reports an incident of that location.

10. The CMS must send a status report summarizing key indicators and trends over email to the Prime Minister's Office once a crisis have been confirmed.

11. The CMS must send an SMS to relevant agencies immediately when a case is reported.

12. The CMS must serve as a command-and-control platform to respond quickly to needs and dangerous conditions, such as gas leaks, hazardous air condition and fires.

Non-functional Requirements (Reliability)

1. The CMS must be able to handle any input errors to avoid a system failure
2. The CMS must have an availability of 99%.
3. The CMS must not exceed 3% of failure rate.
4. The CMS must be restored within 2 minutes after failure.
    a. The CMS must save the system state every 5 minutes.
5. The CMS must be 99.9% operational during its first year of operation.
6. The CMS must be able to start up within 5 seconds.
7. The CMS must not crash unnecessarily and should be restored within 1 minute.
    a. OR 'The CMS must recover from any downtime in less than 5 minutes.

8. The CMS must prompt the user to logout after idle for 15 minutes.
    a. A pop up prompt is opened to allow user to choose to log out or stay logged in.
    b. User will be logged out 15 seconds after the pop-up is created.
9. The CMS shall display the latest status updates in 10 seconds.
10. The CMS shall alert the members of the public within 1 minute when a crisis occur.

Data Dictionary

Term	Definition
CMS	Crisis Management System
Real-Time	Updates will be refreshed/made instantaneously upon data entry or receipt of a command.
Idle	A lack of user input or interaction with the user interface
Region	The overview of the map is divided into 5 regions, namely North, South, East, West and Central.
Severity	Defined as high, medium and low
Color code	Severity of the crisis that are high are shown in red, medium are shown in orange and low are shown in yellow.
PSI	Pollutant Standards Index
Weather conditions	Symbols of weather conditions such as sunny, cloudy, rainy etc.