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| --- | --- | --- | --- |
| Use Case ID | CMS-1 | | |
| Use Case Name | Provide Real-time Crises Information on Map | | |
| Created By | Ang Teck Wee | Last Updated By |  |
| Date Created | 8/9/18 | Date Last Updated |  |

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| --- | --- |
| Actor | General Public |
| Description | The user checks on real time crises information. |
| Preconditions |  |
| Postconditions | The General Public UI displays a map of Singapore with real time crises information. |
| Priority | High |
| Frequency of Use | High |
| Flow of Events | 1. The system displays the General Public UI. 2. The system retrieves information from database and displays the areas on the Watch Map with crises (if any). 3. The user clicks on the filters (Dengue, Haze, Terror Attacks) to view more information of the selected crisis. 4. The system displays additional information on the crisis:  - Dengue: Dengue hot spots, severity  - Weather: Hourly PSI level reading by region & Weather Condition  - Emergencies: Live updates of reported and suspected Emergencies |
| Alternative Flow |  |
| Exceptions | **CMS-1.EX-1:** Weather API has downtime.  System Response – Dialog Box appears informing user that Weather API is facing downtime and the issue is being resolved.  **CMS-1.EX-2:** PSI API has downtime.  System Response – Dialog Box appears informing user that PSI API is facing downtime and the issue is being resolved.  **CMS-1.EX-3:** Weather API has downtime.  System Response – Dialog Box appears informing user that Weather API is facing downtime and the issue is being resolved. |
| Includes | Update Real Time Data |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | NA |
| Notes and Issues | NA |

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| --- | --- | --- | --- |
| Use Case ID | CMS-2 | | |
| Use Case Name | Update Real Time Data | | |
| Created By | Ang Teck Wee | Last Updated By |  |
| Date Created | 8/9/18 | Date Last Updated |  |

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| Actor | Weather API, PSI API, Dengue API |
| Description | The system gets real time information from the different APIs. |
| Preconditions | 1. The system is set to get relevant information from APIs. |
| Postconditions | 1. The system is updated with real time information. |
| Priority | High |
| Frequency of Use | High |
| Flow of Events | 1. The system retrieves data from the APIs every 30 minutes interval. 2. The system updates the database. |
| Alternative Flow | NA |
| Exceptions | **CMS-2.EX-1:** Weather API has downtime.  System Response – Error appears in logs informing that there is no response from Weather API and update data has failed.  **CMS-2.EX-2:** PSI API has downtime.  System Response – Error appears in logs informing that there is no response from PSI API and update data has failed.  **CMS-2.EX-3:** Dengue API has downtime.  System Response – Error appears in logs informing that there is no response from Dengue API and update data has failed. |
| Includes | NA |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | NA |
| Notes and Issues | All back end |

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| --- | --- | --- | --- |
| Use Case ID | CMS-3 | | |
| Use Case Name | Call Center Update | | |
| Created By | Ang Teck Wee | Last Updated By |  |
| Date Created | 8/9/18 | Date Last Updated |  |

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| --- | --- |
| Actor | Call Center Operator |
| Description | Call Center operator updates database based on calls from General Public |
| Preconditions | 1. Call Center personnel is logged in. 2. Call Center personnel received call from General Public. |
| Postconditions | 1. Information from General Public is updated into the database. 2. Information has already been updated into the database. |
| Priority | High |
| Frequency of Use | Whenever Call Center Operator receives a call. |
| Flow of Events | 1. The system displays the update info interface. 2. The operator enters the name into the Name textbox. 3. The operator enters the mobile number into the Mobile Number textbox. 4. The operator enters the postal code into the Location(Postal Code) textbox. 5. The operator enters the latitude in the latitude textbox. 6. The operator enters the longitude in the longitude textbox. 7. The operator selects the type of assistance requested – Emergency Ambulance, Rescue and Evacuation, Fire-Fighting,Gas Leak Control or Terrorist Attack. 8. The operator clicks the Submit button. 9. The system validates the input information. (Front-end validation) 10. The system displays a confirmation message. 11. The system validates the emergency is not already created in the database. (Back-end validation) 12. The system updates the database. 13. The system uses the included use case “receive dispatch command” to send out SMS to relevant agencies. |
| Alternative Flow | **CMS-3.AF-1.S8:** Wrong inputs (Front end validation failed)   1. Red error message (“Please check your input”) below textbox will show which fields are incorrectly input. 2. The system returns to Step 1.   **CMS-3.AF-2.S8:** Empty fields (Front end validation failed)   1. Red error message (“This field cannot be empty”) below textbox will show missing fields. 2. The system returns to Step 1.   **CMS-3.AF-3-S10:** Emergency has already been reported and created (Back end validation failed)   1. Dialog box shows error message (“Emergency is already in database”). 2. The system returns to Step 1. |
| Exceptions | NA |
| Includes | NA |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | 1. General Public must provide all required information. 2. General Public must provide accurate information. |
| Notes and Issues | Should we make this for emergency reporting only? |

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| Use Case ID | CMS-4 | | |
| Use Case Name | Receive Dispatch Command via SMS | | |
| Created By | Guo Wei | Last Updated By |  |
| Date Created | 5/9/18 | Date Last Updated |  |

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| Actor | Relevant Government Agencies, SMS API |
| Description | The system sends an SMS to dispatch the relevant government agency. |
| Preconditions | 1. Call Center Operator has already updated information to database. |
| Postconditions | 1. The system sends out SMS. |
| Priority | High |
| Frequency of Use | Whenever new emergency is created and updated in database. |
| Flow of Events | 1. The system retrieves information from database.  2. The system generates the message to be sent.  3. The system retrieves the relevant agencies information.  4. The system uses SMS API to send message to relevant agencies. |
| Alternative Flow | NA |
| Exceptions | **CMS-4.EX-1**: SMS API has downtime.  System Response – Error appears in logs informing that there is no response from SMS API and sending dispatch command has failed. |
| Includes | Update Info |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | 1. The relevant agencies information is stored inside the system. |
| Notes and Issues | NA |

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| --- | --- | --- | --- |
| Use Case ID | CMS-5 | | |
| Use Case Name | Update Social Media | | |
| Created By | Guo Wei | Last Updated By |  |
| Date Created | 5/9/18 | Date Last Updated |  |

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| Actor | Social Media API |
| Description | The system updates public on useful information through social medias periodically. |
| Preconditions | 1. Social Media accounts has been set up.  2. Information to be included in social media updates is predefined. |
| Postconditions | 2. Information is pushed out on social media. |
| Priority | High |
| Frequency of Use | High |
| Flow of Events | 1. The system retrieves information from the database.  2. The system summarizes the information.  3. The system generates a social media post based on the information.  4. The system pushes an update through the social media API. |
| Alternative Flow | NA |
| Exceptions | **CMS-5.EX-1**: Social Media API has downtime.  System Response – Error appears in logs informing that there is no response from Social Media API and social media update has failed. |
| Includes | NA |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | NA |
| Notes and Issues | NA |

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| --- | --- | --- | --- |
| Use Case ID | CMS-6 | | |
| Use Case Name | Generate Status Report | | |
| Created By | Guo Wei | Last Updated By |  |
| Date Created | 5/9/18 | Date Last Updated |  |

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| Actor | PM, Send Email API |
| Description | The system generates a summary report and deliver it to the PM office every 30 minutes |
| Preconditions | 1. The system is scheduled to send a report every 30 minutes.  2. Information to be included in status report is predefined. |
| Postconditions | 1. The report is generated and delivered on time. |
| Priority | High |
| Frequency of Use | Every 30 minutes |
| Flow of Events | 1. The system retrieves the latest information from the database.  2. The system summarizes the information on the crises.  3. The system generates the report.  4. The system uses an external API to send an email to the PM’s office. |
| Alternative Flow | NA |
| Exceptions | **CMS-5.EX-1**: Send Email Report API has downtime.  System Response – Error appears in logs informing that there is no response from Send Email API and sending of status report email has failed. |
| Includes | NA |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | 1. A scheduler is set inside the system.  2. Data inside database is as accurate to real time as possible. |
| Notes and Issues | NA |

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| --- | --- | --- | --- |
| Use Case ID | CMS-7 | | |
| Use Case Name | Resolve Emergency | | |
| Created By | Guo Wei | Last Updated By |  |
| Date Created | 25/10/18 | Date Last Updated |  |

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| Actor | Relevant Government Agencies |
| Description | The system receives an SMS response from the relevant government agency and mark the emergency as solved. |
| Preconditions | 1. SMS for the emergency has been sent out beforehand. |
| Postconditions | 1. The system mark the emergency as solved |
| Priority | High |
| Frequency of Use | Whenever response SMS for emergency has been received. |
| Flow of Events | 1. The system receives the response SMS from Relevant Government Agencies  2. The system retrieves information about the emergency from the database.  3. The system marks the emergency status as “solved”.  4. The system updates the database with the new information. |
| Alternative Flow | NA |
| Exceptions |  |
| Includes |  |
| Extends | NA |
| Special Requirements | NA |
| Assumptions | 1. The emergency information is stored inside the system. |
| Notes and Issues | NA |