



**Homeland
Security**

Homeland Security Information Network

Program Management Office

Alerts and Notification Use Case

Version 1.0

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Revision History

Name	Date	Reason For Changes	Version

Approval Signature

Name	Organization	Date	Signature

1 Scope

1.1 ALERTS AND NOTIFICATIONS CAPABILITY OVERVIEW

The Alerts and Notifications Capability enables Community of Interest (COI) administrators and/or Owners to communicate significant and time critical content to a specific group of relevant Homeland Security Information Network (HSIN) users. The capability includes the sending of Alert messages through HSIN portals with certain standardized footer notes to a specific audience through various optional communication devices/tools. This capability also includes the archival of these sent alert messages viewable to COI Admin and/or Owner user.

1.2 TERMINOLOGY

The terms “Threshold” and “Objective” will appear in Section 2 of this document, in reference to requirements types. Threshold denotes the minimum acceptable requirements, while objective denotes the desired requirements. Threshold requirements are the minimum requirements necessary to satisfy the customer’s needs. Objective requirements represent some of the additional options the customer would “like” to have, but are not necessary.

1.3 DOCUMENT OVERVIEW

Section 2 of this document contains all of the requirements for the Alerts and Notifications capability, captured from the HSIN Change Request Registration and Tracking System (ChaRTS), as change requests labeled as “New Functionality” Change Requests (CR), and during HMCC/End-User requirements elicitation meetings.

Also contained within this document, is an Alerts and Notifications Use Case (UC) Diagram (Section 3) and the corresponding Alerts and Notifications Use Cases in Section 4.

User recommended design implementations are noted in Appendix A.

1.4 ACRONYMS

ChaRTS	Change Request Registration and Tracking System
CM	Configuration Management
COI	Community of Interest
DHS	Department of Homeland Security
HMCC	Homeland Security Information Network Mission Coordination Committee
HSIN	Homeland Security Information Network
MMS	Multimedia Message Service
RGS	Requirements Gathering Session
SMS	Short Message Service
UC	Use Case
VoIP	Voice over Internet Protocol

2 Alerts and Notification Requirements

Alerts and Notifications			
Req. ID	Requirement	Req. Type	Source
A&N-1.0	General Alerts and Notifications		
A&N-1.1	The HSIN shall have the ability to process real-time alerts and notifications	Threshold	06/26/2007 RGS
A&N-2.0	Alerts Send		
A&N-2.1	COI admin/owners within HSIN sectors shall have the capability to send administrative alerts and notifications regarding a new document	Threshold	CR-138
A&N-2.2	COI admin/owners within HSIN sectors shall have the capability to send administrative alerts and notifications regarding any announcements	Threshold	CR-138
A&N-2.3	COI admin/owners shall be able to send alerts and notifications via any communication mediums and devices in addition to email. (i.e., phones (wired and wireless, Pagers, SMS, MMS, VoIP, etc,...))	Objective	06/26/2007 RGS
A&N-2.4	COI admin/owner shall be able to send alerts and notifications that are only available to the user through the web portal Note: Alerts and notifications available only through the portal may have an external message sent to the user that says "you have a private message on the HSIN-(Insert COI here) portal, please log into to receive."	Threshold	CR-154
A&N-3.0	Alerts Receive		
A&N-3.1	Users shall be able to receive alerts and notifications, in the form of an email, on any email enabled device	Threshold	06/26/2007 RGS
A&N-3.2	Users shall be able to receive alerts and notifications via any communication mediums and devices in addition to email. (i.e., phones (wired and wireless, Pagers, SMS, MMS, VoIP, etc,...))	Objective	06/26/2007 RGS
A&N-3.3	Users shall have the ability to be notified of new alerts and notifications, while logged onto the HSIN web portal (i.e. a pop up)	Threshold	153

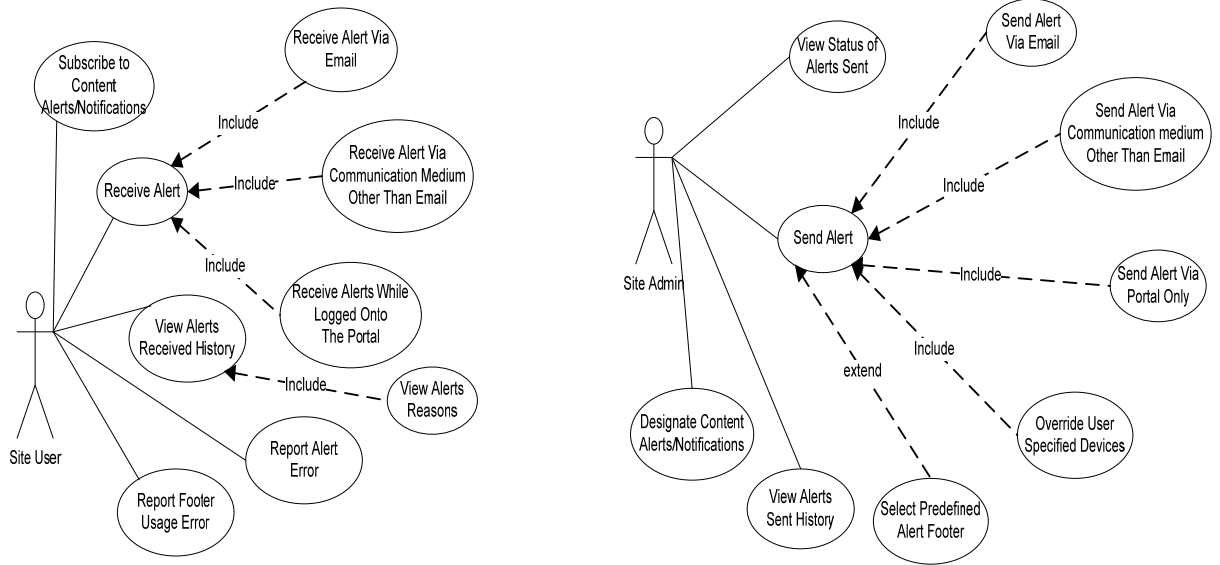
Alerts and Notifications Cont.			
Req. ID	Requirement	Req. Type	Source
A&N-3.4	The end-user shall have the ability to set the preferences for which device(s) they will receive alerts and notifications	Threshold	06/26/2007 RGS
A&N-3.4.1	The COI admin/owners shall have the ability to override the user defined device preferences	Threshold	06/26/2007 RGS
A&N-3.5	Receipt confirmation must have a human in the loop Note: Auto confirmation will not be allowed, to ensure that the intended user has indeed acknowledged the alert.	Threshold	06/26/2007 RGS
A&N-3.6	The system shall allow users to subscribe to content channels, which would be an amalgam of sources (documents, HSIN document folders on the discussions threads, newsfeeds, etc...), that sent automatic alerts to the subscriber	Threshold	06/26/2007 RGS
A&N-3.6.1	The user shall subscribe during the registration process	Threshold	06/26/2007 RGS
A&N-3.6.2	The COI admin/owner shall be able to sign up individuals/groups, based on COI interests	Threshold	06/26/2007 RGS
A&N-3.6.2.1	The user shall be able to opt out of predetermined subscriptions	Threshold	06/26/2007 RGS
A&N-3.6.2.1.1	The COI admin/owners shall be able to overwrite the users decision to opt out of predetermined subscriptions	Threshold	06/26/2007 RGS
A&N-3.7	The system shall support 2-way, interactive responses (i.e.; voter buttons)	Threshold	06/26/2007 RGS
A&N-3.7.1	The system shall prevent "reply to all" responses	Threshold	06/26/2007 RGS
A&N-3.8	Users shall be able to report receiving a message in error and request to opt out	Threshold	06/26/2007 RGS
A&N-4.0	Alerts Footer		
A&N-4.1	COI admin/owner shall be required to select a pre-defined footer when entering alerts and notifications	Threshold	CR-151

Alerts and Notifications Cont.			
Req. ID	Requirement	Req. Type	Source
A&N-4.1.1	COI admin/owner shall be able to select Sensitive as the required alerts and notifications Note: To be defined by DHS	Threshold	CR-151
A&N-4.1.2	COI admin/owner shall be able to select Open-Source as the required alerts and notifications footer Note: To be defined by DHS	Threshold	CR-151
A&N-4.1.3	COI admin/owner shall be able to select Do Not Distribute as the required alerts and notifications footer Note: To be defined by DHS	Threshold	CR-151
A&N-5.0	Alerts Archive		
A&N 5.1	All alerts and notifications shall be routed through the portal, for Configuration Management (CM) control and archiving purposes	Threshold	06/26/2007 RGS
A&N-5.2	The system shall have an alert-message-archive tool that stores all sent alerts and notifications, including their footers	Threshold	CR-152
A&N-5.3	The system alert-message-archive tool shall allow a user to view alerts and notifications they have received	Threshold	CR-152
A&N-5.3.1	The system alert-message-archive tool shall allow a user to view the name of the alerts and notifications sender for alerts and notifications they have received	Threshold	CR-152
A&N-5.4	The system alert-message-archive tool shall allow a COI admin/owner to view alerts and notifications they have sent	Threshold	CR-152
A&N-5.5	The system alert-message-archive tool shall allow the users see each group the alert was sent to, and provide brief description of why	Threshold	06/26/2007 RGS
A&N-5.6	The sender and COI admin/owner shall be able to view the names of recipients who have opened their intended alerts and notifications	Threshold	CR-155

Alerts and Notifications Cont.			
Req. ID	Requirement	Req. Type	Source
A&N-5.7	The system alert-message-archive tool shall have multiple views or filters available to the users. (i.e.; Last 7 Days, Last Month, Last 90 Days, Last 6 Months, Last 12 Months, All, Recent, Expired, etc...)	Threshold	06/26/2007 RGS
A&N-5.9	The system shall capture and record when a user reports that they received a message in error, for later analysis	Threshold	06/26/2007 RGS
A&N-5.10	The system shall capture and record when a user reports that the wrong footer was used, for later analysis (i.e.; an alert is marked as sensitive, but some users do not agree that the actual message is sensitive and would be better marked with a different footer)	Threshold	06/26/2007 RGS

3 Alerts and Notification Use Case Diagram

Figure 1.1



4 Alerts and Notifications Use Cases

4.1 SEND ALERT USE CASE

Name:	Send Alert
Identifier:	UC1
Description:	COI Site Admin/Owner is able to use send alert function to distribute alerts via different optional mediums through COI portal
Goal:	Distribute COI alerts to COI portal users' various devices via portal
Preconditions:	COI Site Admin encounters a need for alerting or notification
Assumptions:	System provides standard recipient device options across all COIs. The COI end-users have registered their desired devices/email accounts where they would like to receive alerts and notification
Frequency:	Whenever deemed necessary by COI Site Admin/Owner
Basic Course:	<ol style="list-style-type: none"> 1. COI Site Admin navigates to Alert/Notification tool on COI portal 2. Enters alert/notification text 3. Ensure that recipients have registered their desired devices/email accounts 4. Select predefined alert footer (UC2) 5. Sends Alert
Alternate Course:	<ol style="list-style-type: none"> 1. COI Site Admin/Owner leaves one of the required information fields blank 2. Alert is not sent and empty fields are highlighted
Post Condition:	Alert is sent to specified distribution list of COI users on specified devices/mediums by COI Site Admin/Owner
Actors:	COI Site Admin/Owner
Included Use Cases:	UC7: Override Specified Devices
Extended Use Cases:	UC2: Select Predefined Alert Footer
Inherited Use Cases:	
Notes:	

4.2 SELECT PREDEFINED ALERT FOOTER USE CASE

Name:	Select Predefined Alert Footer
Identifier:	UC2
Description:	During Alert creation, COI Site Admin/Owner is required to select a predefined footer text appropriate for the Alert
Goal:	Select footer text for the alert being created
Preconditions:	COI Site Admin/Owner needs to create an Alert/Notification, Predefined footers have been defined
Assumptions:	<ol style="list-style-type: none"> 1. Alert footer is a required alert attribute 2. Footer options are predefined and standardized
Frequency:	Each time an alert or notification is being created
Basic Course:	<ol style="list-style-type: none"> 1. COI Site Admin completes Alert form on COI portal 2. Selects one of the footer text provided 3. Proceeds to send alert
Alternate Course:	<ol style="list-style-type: none"> 1. COI Site Admin/Owner leaves one of the required information fields blank 2. Alert is not sent and empty fields are highlighted
Post Condition:	COI Site Admin/Owner appends standard footer text to Alert message
Actors:	COI Site Admin/Owner
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.3 VIEW ALERTS CHECKED USE CASE

Name:	View Status of Alerts Sent
Identifier:	UC3
Description:	COI Site Admin/Owner has the ability to view of all the recipients who have received Alert message through Portal, which ones have opened alert and which have not
Goal:	Allow COI Site Admin/Owner to see status of Alerts sent
Preconditions:	COI Site Admin/Owner has distributed alert message to recipients
Assumptions:	Only COI Site Admin/Owner has access to this portion of the archived tool
Frequency:	As often as the COI Site Admin/Owner requires
Basic Course:	<ol style="list-style-type: none"> 1. COI Site Admin/Owner navigates to view for Alert Checked Log 2. Alert checked log displays filtered information on: <ol style="list-style-type: none"> a. Alert message b. Users that have checked Alert c. Users that have not checked Alert
Alternate Course:	n/a
Post Condition:	COI Site Admin/Owner is informed of users who have checked or not checked certain alerts
Actors:	COI Site Admin/Owner
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	If used with voting capabilities, this tool could be used for voting things into policy (would be an additional UC)

4.4 RECEIVE ALERT USE CASE

Name:	Receive Alert
Identifier:	UC4
Description:	COI Site users shall receive Alerts and Notifications by devices/mediums registered by the end-user
Goal:	The end-user receives COI Admin/Owner distributed alerts
Preconditions:	COI Admin/Owner has created and sent Alert Messages
Assumptions:	User has access to, and registered the devices/mediums to which the Alert Messages were sent
Frequency:	As often as COI Admin/Owner creates messages
Basic Course:	Case: Target Medium is a registered email account COI Site User receives message on email enabled device Case: Target Medium is Portal 1. COI Site User logs onto HSIN 2. COI Site User sees awaiting Alert Message on portal
Alternate Course:	n/a
Post Condition:	COI Site User receives alert message
Actors:	Site Users
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.5 VIEW ALERTS SENT HISTORY USE CASE

Name:	View Alerts History
Identifier:	UC5
Description:	COI Site Admin/Owner has ability to view all historical sent Alert Messages
Goal:	Allow COI Site Admin/Owner to view historical sent Alert Messages
Preconditions:	Alert Messages have been sent in the past by COI Site Admin/Owner
Assumptions:	The alert has been stored and can be filtered
Frequency:	As needed by COI Site Admin/Owner
Basic Course:	<ol style="list-style-type: none"> 1. COI Site Admin/Owner logs onto COI Portal 2. COI Site Admin/Owner navigates to historical Alerts Sent page 3. COI Admin/Owner filters (may be predefined views to be selected) the alerts sent 4. COI Admin/Owner views a filtered list of Alerts Sent
Alternate Course:	n/a
Post Condition:	COI Site Admin/Owner views the archived list of historical sent Alert Messages
Actors:	COI Site Admin/Owner
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.6 VIEW ALERTS RECEIVED HISTORY USE CASE

Name:	View Alerts Received History
Identifier:	UC6
Description:	All COI Site users are able to view history of received Alert Messages in the Portal
Goal:	Allow COI Site users to view history of their received Alert Messages
Preconditions:	Users have received Alert Messages
Assumptions:	The alert history has been stored. The recipient can view who sent the alert, the alert itself, the footer, who else (which groups) the alert was sent to and a brief description of why it was chosen to be sent to them.
Frequency:	As needed by COI Site Users
Basic Course:	<ol style="list-style-type: none"> 1. User logs on to HSIN COI Portal 2. User navigates to Alert Message Received archive page 3. User filters (may be predefined views to be selected) Alerts Received 4. User views a filtered list of Alerts Received
Alternate Course:	n/a
Post Condition:	COI Site Users has viewed historical received Alert Messages
Actors:	COI Site users
Included Use Cases:	UC10: View Alerts Reasons
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.7 OVERRIDE USER SPECIFIED DEVICES

Name:	Override User Specified Devices
Identifier:	UC7
Description:	COI Site Admin/Owner is able to override the users chosen communication mediums as needed
Goal:	Distribute COI alerts to COI portal users through COI Admin/Owner designated mediums, which may differ from the users original designated mediums
Preconditions:	COI Site Admin encounters a need for alerting or notifications to a specific user device
Assumptions:	System provides standard recipient device options across all COIs. The COI Admin/Owner is not satisfied with the end-users desired devices/email accounts where they would like to receive alerts and notification, and has decided that another would be more suitable for the alert/notification at hand
Frequency:	Whenever deemed necessary by COI Site Admin/Owner
Basic Course:	<ol style="list-style-type: none"> 1. COI Site Admin navigates to Alert/Notification tool on COI portal 2. Enters alert/notification text 3. Override that recipients desired devices/email accounts 4. Select predefined alert footer (UC2) 5. Sends Alert
Alternate Course:	<ol style="list-style-type: none"> 1. COI Site Admin/Owner leaves one of the required information fields blank 2. Alert is not sent and empty fields are highlighted
Post Condition:	Alert is sent to specified distribution list of COI users on specified devices/mediums by COI Site Admin/Owner
Actors:	COI Site Admin/Owner
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.8 SUBSCRIBE TO CONTENT ALERTS/NOTIFICATIONS

Name:	Subscribe to Content Alerts/Notifications
Identifier:	UC8
Description:	COI portal user is able to use subscribe to content channels, to receive alerts/notifications based upon content related materials
Goal:	Distribute COI alerts to COI portal users, that deals with user desired content
Preconditions:	Actor has been nominated to become a HSIN user
Assumptions:	Actor is in the process of registering for an account
Frequency:	Each time a new member is added to the HSIN portal/COI
Basic Course:	<ol style="list-style-type: none"> 1. New member registers HSIN account 2. Alerts subscription form is displayed 3. New member identifies content they want an alert/notification for 4. New member submits selections 5. Alerts are sent as desired
Alternate Course:	<p>A. Wrong Content</p> <ol style="list-style-type: none"> 1. User selects the wrong content 2. Unwanted alerts are sent 3. User edits content subscriptions <p>B. Content Not Identified</p> <ol style="list-style-type: none"> 1. User forgets to select a desired content category 2. User does not receive desired content 3. User edits content subscriptions
Post Condition:	Alerts are sent to COI users that contain the desired content they identified during registration
Actors:	New HSIN/COI Users
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.9 COI ADMIN/OWNER DESIGNATED CONTENT ALERTS/NOTIFICATIONS

Name:	Designate Content Alerts/Notifications
Identifier:	UC9
Description:	COI Site Admin/Owner is able to designate content alert subscriptions for users, base on COI related content
Goal:	Distribute COI related content alerts to COI portal users
Preconditions:	The user(s) are registered are capable of receiving alerts.
Assumptions:	There is a system check that prevents duplicate subscriptions.
Frequency:	Whenever deemed necessary by COI Site Admin/Owner
Basic Course:	<ol style="list-style-type: none"> 1. COI site admin/owner navigates to Alert/Notification content subscriptions tool on COI portal 2. COI site admin/owner Identifies desired content for alerts/notifications 3. COI site admin/owner submits selections
Alternate Course:	<ol style="list-style-type: none"> 1. COI admin/owner identifies content that the user(s) is already subscribed to 2. System does not create duplicate subscription(s)
Post Condition:	Alerts are sent to COI users that contain the desired content that the COI admin/owner identified
Actors:	COI Site Admin/Owner
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.10 VIEW ALERTS REASONS

Name:	View Alerts Reasons
Identifier:	UC10
Description:	COI Site User receives an alert and is not sure why
Goal:	COI Site Users are able to review alerts received data, which includes groups the alert was sent to and a brief description of why.
Preconditions:	COI Site User is a member of COI group that the alert was sent to
Assumptions:	COI Site user is aware of which groups they are members of.
Frequency:	As often as the COI Site User desires
Basic Course:	<ol style="list-style-type: none"> 1. COI Site User receives alert 2. COI Site User logs onto the HSIN portal and navigates to the alert-message-archive tool 3. COI Site User reviews messages received data <ol style="list-style-type: none"> a.) Distribution list b.) Distribution reasons
Alternate Course:	<ol style="list-style-type: none"> 1. COI Site User discovers they are incorrectly assigned to a group 2. COI Site User notifies the COI Admin/Owner of the group
Post Condition:	COI Site User is aware of why they were sent the alert
Actors:	COI Site User
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.11 REPORT ALERT ERROR

Name:	Report Alert Error
Identifier:	UC11
Description:	COI Site Users report when they have received a message in error, and the system captures and archives this data
Goal:	Message errors are captured and can be use for future reference
Preconditions:	Error reporting is available
Assumptions:	A COI Site User has received a message in error.
Frequency:	Each time a COI Site User receives a message in error
Basic Course:	<ol style="list-style-type: none"> 1. COI Site User receives a message they should not have 2. COI Site User reports the error
Alternate Course:	N/A
Post Condition:	Report is collected and stored in the archive tool
Actors:	COI Site User
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

4.12 REPORT FOOTER USAGE ERROR

Name:	Report Footer Usage Error
Identifier:	UC12
Description:	COI Site Users report when they have received a message that has the wrong footer
Goal:	Footer errors are captured and can be use for future reference
Preconditions:	Error reporting is available
Assumptions:	An alert was sent with the wrong footer designated
Frequency:	Each time an alert is sent with the wrong footer designated
Basic Course:	<ol style="list-style-type: none"> 1. COI Site User receives an alert with the wrong footer 2. COI Site User reports the error
Alternate Course:	N/A
Post Condition:	Report is collected and stored in the archive tool
Actors:	COI Site User
Included Use Cases:	
Extended Use Cases:	
Inherited Use Cases:	
Notes:	

APPENDIX A

User Recommendations

Requirement/Use Case	Recommendation
Alerts and Notifications Interface	The alerts and notifications interface shall be designed for non-technical users. Anyone should be able to use this feature, without specific training.