

MESSAGE MAPPING

BEST PRACTICES

Introduction

With rapidly advancing technology and the mass adoption of mobile devices, employees, citizens and key stakeholders now expect immediate notification of any incident or emergency that may affect them. As such, emergency notification and incident management systems are quickly becoming ubiquitous.

Although it may seem simple to broadcast a notification, once you have invested the time to select an appropriate system, a successful broadcast can prove to be much more complicated. Especially in the event of an emergency or critical incident, attention span, reading level and contact path of the recipient are all things that must be taken into consideration for a successful broadcast.

Many factors can impact the successful outcome of a notification. The wording and structure of a message for an incident or alarm can literally determine a positive or negative outcome. It can affect your reputation, brand, and even revenues. In extreme cases, it can even mean the difference between life and death for intended recipients. The ability to optimize your connection and level of communication to your employees, customers, stakeholders or citizens and to protect their lives, interests and assets is critical. It is, in fact, a fundamental factor in demonstrating organizational readiness.

By analyzing first-hand accounts from administrators of emergency notification incident management systems, the behavior of end users and recipients of broadcasts, and expert insights from industry professionals such as Dr. Robert Chandler, author of *Emergency Notification*, one can glean the best practices behind the science of message mapping. The key is to get the **right message** to the **right person** at the **right time** and elicit the **right response**.

Steps to Message Mapping Success

The best practices of message mapping can be broken down into the following key items:

1. Plan before the incident
2. Brainstorm worst-case scenarios
3. Follow Chandler's 3-3-30 rule
4. Keep it simple in a crisis
5. Craft your messages to match the stages of an event
6. Choose your words carefully
7. Craft for the recipient
8. Test, Train, and Fix
9. Look at send and receive models
10. Order your messages "ala mode"
11. Watch your tone
12. Remember that Message Mapping is a science
13. Show me an example

1. Plan before the incident

Planning before an incident provides many benefits. Crafting messages before the incident:

- Allows you to respond faster
- Reduces the chance of sending a misleading or even incorrect message
- Allows the legal team and senior management to pre-approve a message template
- Permits the translation of messages into other languages
- Allows you to manage rumors before they get out of control
- Decreases the anxiety levels of individuals responsible for sending the notification

2. Brainstorm worst-case scenarios

The Occupational Safety and Health Administration (OSHA), in their article on "How to Plan for Workplace Emergencies and Evacuations," provides a good list of questions to think about as you prepare to craft your messages. It starts with the suggestion **Brainstorm the worst-case scenarios** - what would you do if:

- There was a fire in your building?
- A severe snow storm, hurricane, or tornado is coming?
- A truck or train carrying hazardous waste crashes near your building?
- A shooter is in your building or vicinity?
- There is a protest outside your building?
- There is a power outage in your region?

Once you have identified the potential incidents that are most relevant to your circumstances, consider how they affect your key audiences and stakeholders and how you should respond. You are looking to deliver refined, prepared, and timed messages to your audience.

3. Follow Chandler's 3-3-30 rule

A general guideline to use when crafting your messages is Dr. Chandler's 3-3-30 recommendation, outlined in *Emergency Notification*.

- No more than **3 message points**
- Deliver **3 short sentences**
- Keep the key content in the first **30 words**

These guidelines may be hard to hit exactly but realize the first 30 seconds is your best chance to get your audience's attention.

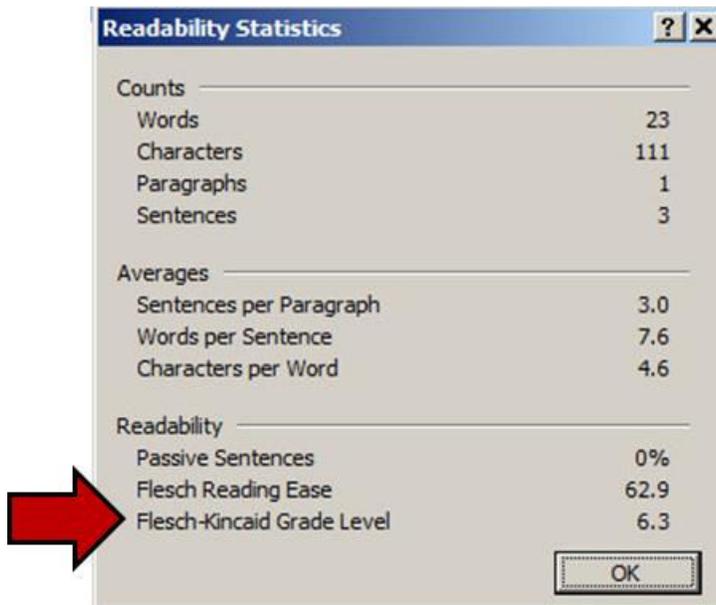
The Federal Emergency Management Agency (FEMA) adds that you should match the speed and frequency of your messages to how quickly and how long your audience needs to know your information.

You can listen to Dr. Chandler's webinar by clicking on [Incident Notification Message Anatomy 101](#).

4. Keep it simple in a crisis

According to his research in *Emergency Environmental Stress Induced Diminished Cognitive Capacities*, Dr. Chandler notes that the average person's reading comprehension in a crisis drops about 4 grade levels. Dr. Chandler recommends writing to a 6th grade level during a serious notification incident. The ability of your audience to understand your message and not get confused reinforces the need for simplicity. A quick way to check your messages grade level is with Microsoft Word 2010. Enter your text in Word and do the following:

- Click the **File** tab
- Click **Options**
- Click **Proofing**
- Under **When correcting spelling and grammar in Word**
- Make sure **Check grammar with spelling** is selected.
- Select **Show readability statistics** to see the readability statistics
- Look at the Flesch-Kincaid Grade Level to see if your message is at the sixth grade level



Readability Statistics	
Counts	
Words	23
Characters	111
Paragraphs	1
Sentences	3
Averages	
Sentences per Paragraph	3.0
Words per Sentence	7.6
Characters per Word	4.6
Readability	
Passive Sentences	0%
Flesch Reading Ease	62.9
Flesch-Kincaid Grade Level	6.3
OK	

5. Craft your messages to match the stages of an event

- **Early stage:** the event is unfolding and not all the facts may be known
 - Provide the information you have
 - Realize stress is high and the time may be short
 - Be clear, precise, and specific.
- **Mid-stage:** there is more information about the event and the desired actions by audience
 - Motivate the recipients to take the correct actions
 - Usually includes actions and is directive based
- **Resolution stage:** the incident is over and the outcome is known
 - Provide the information to help everyone resume their lives
 - Describe services or areas that will not return to normal operation

6. Choose your words carefully

The response to your message can be affected by the words you use or avoid. Think about the reaction you are looking for. Does your message help or is it too inflammatory? A prepared message should be reviewed **by the potential recipients**.

- Is your message suitable for gender, cultural, and racial norms?
- Are there words with misleading connotations?
- Is there non-universal jargon or acronyms in the message?

Use the internet to find synonyms or clearer terms if needed.

A message that will be sent internationally, even to English speaking recipients, must be more closely checked. “There’s a fire in the boot” may have a different meaning to a US or UK English speaking recipient.

7. Craft for the recipient

During an incident there may be several messages and actions that are needed. Does the senior team need to be put on an immediate conference call? Will messages to the security team, network operations, and general employees be different? How will you distinguish what building and what floor are on fire if there are multiple buildings in the same town?

This can be automated if your incident notification system has a scenario-based messaging feature. You can craft your messages to each specific audience, bundle them in the scenario, and then send all the messages at once when the scenario occurs. It requires planning on the front-end but provides speed and efficiency when the incident occurs.

8. Test, Train, and Fix

The potential dangers of a bad message or poor execution are too great to dismiss. To demonstrate why training is critical, let’s use a common example to illustrate why people must actually perform an action and not just read about it. Let’s look at driving a car. Anyone who passes the driver’s education test is not automatically able to drive a car. It takes actual experience behind the wheel to be licensed. In the same way, it is better to learn in a test environment rather than a legitimate life or death incident. Regularly schedule tests and mock scenarios, people, notification channels, and an organization’s structure changes – and remember that what worked in the past may not work now.

9. Look at send and receive models

In a send and receive model:

- The notification initiator sends a message
- The receiver gets the message and sends a confirmation or reply
- The notification initiator gets the confirmation or reply and reacts to the feedback.

You may need to know what percentage of your recipients got the message. You can use a returned confirmation to determine that. The answer may influence your next notification.

In a polling model, you can ask a series of questions in order to obtain the answer you need.

For example:

“This message is regarding your current work location.

Please respond to this message by providing your work location.”

(Polling Response Options)

“Please make your selection from the following choices.”

- | | |
|------------------|---|
| “Press 1” | If you are working in your normal office. |
| “Press 2” | If you are working from home. |
| “Press 3” | If you are working from an alternate facility. |
| “Press 4” | If you are not working today. |

These options could be used if a building is closed due to an emergency and you need to see where your employees are located. It could also be used during a flu outbreak to see who is working and where they are. This requires that you have a way to examine the results of the confirmations or replies in real-time. A solid reporting tool for your incident notification system is needed to do this.

10. Order your messages “ala mode”

A key concern for the crafted message is, “how will it be delivered?” What mode will you use? Each mode has advantages and disadvantages but it is important to understand each mode’s impact on your message. Beside landline phones and cell phones, you can use:

- **Short Message Service (SMS)**, also called text messaging, uses the mobile or wireless network to deliver a message. The messages should be brief and to the point. This message format can be used where the mobile signal is too weak to handle a call. This leads to use of coded messages for some emergency situations. If the message is too long (there is a 160 character limit), it will be broken up and the parts may not arrive in sequential order resulting in possible confusion for the recipient.
- **Pagers** were much more prevalent in the past but are still used by security, hospital, and network operations teams. Pagers tend to work in times of emergencies and vary in message types. They are often deployed where cell phones service is poor or non-existent. Some will only allow a few characters or numbers for your message. Others can handle SMS messages or even email.
- **Email** is a very popular and widespread mode of delivering a message. It has the ability to use formatting to emphasize message points if the user and mail server permit it. It is critical to craft your message following the 3-3-30 methodology developed by Dr. Chandler. This mode is less likely to be accessed if the recipient is on the move. Email should require a confirmation to be sure it has reached the recipient.
- **Instant Messaging (IM)** offers real-time direct written language-based online chat (Wikipedia)(AOL AIM, MSN Messenger, Yahoo!, etc.) and allows multiple messages and replies. The National Weather service uses IMs for their interactive nature and near real time delivery. Research has shown that users like IM for quick messaging and replying. Some IM systems allow automatic messaging to respond to a recipient’s reply. This requires planning and testing.
- **Social Networking** can involve messages by Twitter or Facebook. Twitter has a definite message length limit but could be useful to notify and redirect recipients to another information source. There has been

a 140 character limit making a terse but meaningful message creation an art form. Facebook can hold full web site contents, links, and changing information.

For Everbridge customers, your Account Manager can help you determine what combination of delivery modes works best for your needs in your industry.

11. Watch your tone

Written messages by email, SMS, FAX, etc. can cause issues because tone is incredibly difficult to convey with the message. The phrase “That’s great” could mean one thing after hearing about a salary increase or another after hearing that there will be layoffs in your company. Sarcasm or humor should be avoided - always. The challenges around capturing tone to help interpret a message led to the growth of emoticons like the smiley face☺ or acronyms like “jk”for “just kidding.” Neither emoticons or acronyms should be used or needed in your message.

12. Message Mapping is a science

There are special forms and steps that can be used to create message mapping templates and messages. Dr. Chandler, in his book ***Emergency Notification***, describes the use of message maps. They are blue prints for you notifications. Pre-created message maps allow review, faster message send time, checklists, and reporting for compliance. The process of developing a message map incorporates audience identification, goal setting, message matrixes, and key point identification. There are usually tools to judge word choice, message type tiers, and message construction.

13. Show me an example

Everbridge has created a message template that provides many examples of messages based on Use-Cases. Everbridge used message mapping concepts and create 30 sample message templates for the following use cases.

1. Contact Information - Update Request
2. Communications Test
3. Hurricane - Communications Test
4. Conference Bridge
5. Accountability - Are You O.K. and Safe?
6. Accountability with Assistance Transfer
7. Response - Willing and Able
8. Response - Quota Fulfillment
9. Office - Delayed Opening
10. Office - Closed
11. Work at Home / Alternate Site
12. Office - Open
13. Transportation & Logistics
14. NYC Transit- Incident Alert

15. NYC Transit – All Safe and Clear
16. London Underground Tube - Incident
17. London Underground Tube – All Safe and Clear
18. Protestors – Coming Into Work
19. Protestors – Departing Work
20. Absenteeism / Workforce Availability - Poll
21. Shooter on Campus - Shelter In Place
22. Shelter Inside
23. Hazardous Material (Hazmat) - Shelter Inside
24. Explosion – Shelter Inside
25. Hurricane - Evacuation Order
26. Building Fire
27. Tornado Warning - Shelter in Place
28. Tsunami Warning – Seek Higher Ground
29. Incident Reporting - Daily Scheduled Inbound
30. All Is Safe and All Is Clear

Creating sample messages for potential scenarios your organization may encounter will save time and make broadcasts more efficient. If you would like a copy of Scott's message mapping samples, please contact your Account Manager. If you are not a current customer email your request to: marketing@everbridge.com

Summary

A successful broadcast is much more than composing a notification and hitting send. Many factors contribute to the success (or failure) of a message broadcast with an emergency notification or incident management system.

The wording and structure of a message for an incident or alarm can be the difference between success and failure. It can affect your reputation, brand name, and even revenues. In extreme cases, it can even mean the difference between life and death for intended recipients.

The ability to optimize your connection and level of communication to your employees, customers, stakeholders or citizens and to protect their interests and assets is critical. It is important to consider planning, brainstorming scenarios, composition rules, reading level, timing and more in order to ensure the most successful broadcast possible.

The key is to get the **right message** to the **right person** at the **right time** to elicit the **right response**.