



AUTOMATING EMERGENCY NOTIFICATIONS

Why organizations need to adopt a scenario-based approach

Automation is transforming nearly every business sector in America, allowing us to work smarter and faster than ever before. Reports from the automotive industry, for example, indicate that up to 15 percent of new cars sold in 2030 could be fully autonomous. It's as if the Jetsons' world we were exposed has been realized. Joking aside, the revolution brought on by the Internet-of-Things (IoT) has indeed given us smart technologies that enable the precursors of a Jetsons-like existence. While we're seeing glimpses of those technologies in our homes, the business sector continues to incorporate automation into its DNA as fast as it is developed. Automation has already had fascinating and profitable impacts on manufacturing, medicine, and of course, transportation; but what about the traditional office experience? What other previously human-exclusive tasks can we automate for smarter, faster, and better results?

Would You Believe Emergency Response?

Think about it. Emergencies like tornadoes, earthquakes, and active shooters wreak havoc in a matter of seconds. Lives are changed or lost in an instant. Therefore, responses to emergencies must also be instantaneous if they're going to be effective at minimizing loss of life and property damage. But as long as responses rely on human activity to initiate, they can't be instantaneous. Traditionally, an emergency responder first sees or hears something. Then they have to decide, among any number of things, what to do - make a phone call, type an email, talk to someone, provide instructions - all under the extreme duress of a crisis. Then they must decide their second action, and then their third, and so on. The added stress of this series of decisions alone can impact judgment and cause costly errors and delay. Even when pre-planned, these actions must still be done sequentially by a living, breathing person - and that takes time.

Of all the resources we have at our disposal for responding to an

emergency, time isn't one of them. But technology fortunately is. Its potential to dramatically change the outcome of a nightmare scenario is only just now being realized - with automation. Like the smart home that adjusts the temperature of your house based on outdoor environmental data thresholds, emergency response can now be fully automated - without human interaction.

Automating Initiation of Actions

Like many other sectors of business, emergency response is now benefitting from new systems brought to market that autonomously monitor various environmental factors. This can range from network threats, severe weather, air quality, and other safety-related conditions. If a life-safety factor is detected, that system can trigger a pre-defined series of actions in a suitably equipped emergency notification system. Think of lightning or gunshot detection technologies. Neither of these initiating prompts needs human interaction to trigger a response. They're autonomous in detecting an emergency and can

also be autonomous in initiating the pre-defined series of emergency actions that need to be taken to respond. This can significantly reduce the time to initiate, resulting in a greater likelihood of minimizing the harm caused by the identified threat.

The process of automating emergency notifications involves pre-defining each specific action that must occur if and when an emergency happens. Each possible scenario (e.g., lockdown, severe weather warning, HAZMAT, active shooter, etc.) should have a thoughtfully crafted sequence of actions that can be set into motion with a single initiation.

Here's where we bridge the emergency response plans of yesteryear - those binders on the shelves - with today's technology. The actions many businesses have already painstakingly laid out on paper as part of their existing emergency response plan can be incorporated directly into software that makes it happen with a triggering event.

Reducing the Time to Initiate

As recently as ten years ago, and even still today when confronted with a crisis, many emergency managers grab that binder from the shelf and furiously flip through it for the response protocol. Depending on the circumstance, several actions must take place including contacting first responders, company executives, employees, vendors, and even local officials. Meanwhile, precious minutes are flying by. It is not uncommon for this type of response to take 15 or even 30 minutes before executed completely.

One of the primary technologies that has enhanced emergency response in the last ten years has been the smartphone, with texting ability and social media access. Today, most emergency managers are moving more quickly through their response scenarios because they can immediately reach multiple groups in a multitude

of ways, such as texting, email, Twitter, Facebook, etc. But for the majority of companies, that's where the use of technology ends. Though they're cutting response times from 15 or 30 minutes down to 10 or 15, they're still missing that critical window in the first and most important minute. Plus, their response is limited to sending messages, as opposed to deploying actions.

By automating the response, the time to initiate and deploy unique actions is dramatically reduced from minutes to seconds and the margin for human error due to stress is erased. Since each message or action has already been carefully crafted for each constituent group and multimodal endpoint, it is not necessary to spend extra time deciphering - often in the midst of an unfolding crisis - what to communicate and where it should go. This saves valuable time when it counts and significantly mitigates the risk of miscommunication or no communication.

In addition to directing emergency messages to the masses, automation enables actions, like mobilizing first responders and resources. Being able to expediently request EMTs, fire, and law enforcement has shown to significantly improve victim outcomes.

Automation also reduces the time to initiate a real-time collaboration session with a predefined group, such as business and local government leaders, in order to make administrative and executive decisions during the incident. Automation should be used to help establish an instant, remote unified command to monitor a situation, discuss next steps, coordinate resources, and more.

Providing Concise Information

Emergency response and communication must provide clear, actionable information. The challenge is quickly determining - while under duress - who

receives what information through which method. As mentioned, the predecessor to an automated approach was to create pre-scripted message "templates" as documents in a binder or on a computer. This was effective in being prepared with the accurately written message that can be sent to the masses, but it sometimes required additional customization and the selection of which group should receive the notification. Automation adds sophistication to templates by establishing multiple communications loops for different recipients and modalities - for each unique scenario.

Invariably, we have heard stories of emergency response and notification that have been compromised by the adrenaline-fueled haste of the individual or organization sending the alerts. In some cases, the wrong people received incorrect notifications, incorrect groups were selected, messages contained typographical errors, and actionable information was left out.

John Hauser, Safety Manager at University of Nebraska Medical Center, shares, "Automation makes life easier for the dispatchers and reduces the chance of making a mistake. You do not have to worry that a group will be missed because the dispatcher was distracted or does not have time to verify."

The Future is Now

Automation has already pervaded many aspects of our lives. Today, it is possible to establish autonomous mechanisms to trigger an automated series of pre-defined actions for a scenario. Evolving from simple text, email, and voice notifications into a more sophisticated automated, scenario-based approach increases the chance of a successful outcome in the worst of situations. 🌱