Secrets to Implementing a Great Notification System

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EXECUTIVE SUMMARY

Situation

A mass notification system is no longer considered a luxury or something needed only by very large or heavily regulated companies. Seeing the value in such systems, even the smallest of businesses are implementing notification systems, along with public agencies, schools and universities, hospitals and even churches.

> The challenge isn't so much in finding a good notification solution, but in figuring out how to implement the system in a way that works best for your organization.

Need

Many of these organizations have neither skill nor experience in effectively implementing a powerful notification system, although they recognize the need for having one. A day doesn't go by with out new threats from severe weather events, terrorist activity, urban wildfire, power outages, earthquakes, cyber-crime, disease outbreak, school or business violence, and many other sources. Most of these events arrive with no warning, and often one of the immediate outcomes is limited or impaired communication, making it difficult to relay important messages regarding safety and disaster response. This is why automated mass notification has become so very critical in the modern world.

Challenge

There are lots of mass notification solutions to choose from, and many have much to recommend them. The challenge isn't so much in finding a good system, but in figuring out how to implement the system in a way that works best for your organization. A broad set of features may be great to have, but the value of those features may not be recognized if your system is not implemented in a carefully orchestrated way.

Solution

This paper draws on over 15 years of real-life notification implementations, many built for the world's most recognized and esteemed organizations. Couple that with the extensive business continuity, crisis communication, resilience and disaster management experience of the author, and you'll find a breadth information to guide you in getting more out of your chosen notification system.

Result

By following the steps and processes outlined in this paper, you'll not only have the tools needed to best protect your people and your resources, you'll be prepared to use them in the most effective way. You'll also establish a culture of preparedness within your organization, which is invaluable in both avoiding and mitigating the impacts of a crisis.

If you're thinking of implementing a notification solution or even replacing a system you already have in place, one of the first questions you'll probably ask is, "How difficult will this project be?" The second question may be, "Will it be worth the effort?".

In this paper, we'll outline the essential steps to implementing a notification system and provide insider tips to help you unlock the remarkable power of your chosen solution.

With every notification deployment, especially those that are SaaS (Software-as-a-Service), getting the system activated and ready can be fast. However, logging into a notification solution for the first time can actually be a bit intimidating. Where do you start? What are the rules and common practices? What should you do before you get started? The time to answer these questions is before the implementation begins; what we call the pre-implementation or planning phase.

At each stage of the implementation, you'll see that a small amount of planning will result in far greater rewards for many years to come.

Implementing a notification solution requires planning for all phases of the life cycle of the solution. This means that there are pre-implementation activities, followed by implementation, and then post-implementation activities. At each stage of the implementation, you'll see that a small amount of planning will result in far greater rewards for many years to come. Let's explore each phase.

PRE-IMPLEMENTATION

Like an artist starting a new painting, before you jump right into entering data in preparation to start sending out important notifications, taking time to plan will ensure you don't have to back up and re-do any of your initial setup.

Pre-implementation: Managing Data

Data management is often the biggest challenge to the implementation of a comprehensive notification solution. Addressing questions about data management and data sources before you start implementation will help set you on the right path.

Who should be included in the notification system?

In today's world of data breaches and the efforts to protect personally identifiable information (PII), it's tempting to minimize the number of contacts you put into the notification system. However, that can turn out to be a mistake when you later need to notify a broader population, as in the case of a full office closure, major employee announcements, etc. The more contacts you include in your system from the start, the more useful the system will be for communication over time.

Where are the data sources?

The same goes for quality of contact data; the more contact information you have for each individual, the better. Don't limit your contacts to simply work email or work phone. It makes sense to start with data in your human resources system, but keep in mind that HR contact data may be limited. So, while you're likely to get basic information on all staff, there is other data that could be helpful, such as:

- Personal mobile phones
- Home phones
- Home address
- Skills
- Business continuity team membership

Most organizations find it necessary to aggregate data from multiple sources to ensure they have comprehensive contact information for employees, contractors and any other distribution lists needed for effective and efficient communication. There are several ways to accomplish this.

Automating the data feed to your notification system is the most efficient method, but manual imports are also an option for smaller systems. Data typically comes from multiple sources, so you need to find a way to reconcile and get the most out of every possible source. Maybe it's by merging sources before yo pass them along into the automated data feed; or, maybe it's be adding multiple automated data feeds; or, maybe it's by supplementing the automated (or manual process) with a self-management portal for users to add and update data that is not readily available from other sources.

Pre-implementation: Defining Use Cases

It's no surprise that colleges and universities were some With data management plans completed, now focus on defined use cases (i.e., the types of messages your HR team will send as compared to your IT team.) Understanding the different uses will help address the remaining decisions for your implementation. Defining use cases and knowing which of your various operational areas will use the notification system will help you determine:

- How will notifications be launched (either automatically through an interface, through integration with other systems, or by the action taken by individuals)?
- Who needs authority to create and/or launch notifications, create groups, etc?
- How you build groups for notifying?
- What security needs to be in place for the system to access contacts/users data, to groups of users, etc?
- What level of detail needs to be in your any message templates you'll create?
- Will your messages be primarily created with simple form-entry for launch, or will they be created in free form?

Once your use cases are defined, then you can start planning how security should be set up to meet your defined access and use cases.

Maybe we can put a short call out on this side to even out the layout?

Pre-implementation: Access Management

It is seldom practical to allow everyone with access to the notification system to have total access to all features and users. Typically you'll want to limit each user to the core functionality required to support each use case, and limit access for those that receive notifications (your recipients) as well.

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By first determining how you want to limit data access, you can then determine how the data in the system should be organized to allow for restricting access. Access controls for your implementation should cover many different areas, including:

- Who are the different users that will need access to system? What are their roles?
- Which users will be allowed to log into the system?
- Who will have access to the mobile app?
- Will groups and distribution lists require restrictions?
- What about restricting core functionality? Importing or exporting data? Making changes for custom verbiage? Make changes for pronunciation on text-to-speech? Controlling the ANI (automatic number identification) for messages?

Pre-implementation: Customization

Notification systems need to allow flexibility for you to create messages that match the culture of your organization and the purpose of your message. Start by naming your system internally, publicizing the importance and value of the system, and then move on to using it throughout the organization. As you gain familiarity of each use case, consider the options to personalize your messages.

For email:

- White label messages (create a recognizable alias) to make them easily identifiable and to remove recipient confusion
- Brand your messages with unique HTML for specific use cases
- Develop consistent standards to help initiators craft the most effective messages

For phones:

- Determine which is the more effective communication for your organization: text-to-speech or recorded voice?
- Make sure the recipient recognizes who is sending the message by function rather than by name
- How do you want your message to sound when it is delivered?
  - » Do you want to require validation of the recipient?
  - » Do you want to automatically insert text based on parameters from the notification? (Example: "This is a test.")
  - » Do you want to allow recipients the ability to replay the message?

» Will messages be delivered in different languages? If so, do you want to have the system automatically deliver in the recipient's preferred language or have the recipient select their language when the message is delivered?

- What happens when the text-to-speech engine doesn't know how to pronounce properly? What adjustments need to be made in order to make sure pronunciations are appropriate for your audience?
- If the recipient does not answer, do you want to leave a message, leave a call-back number or both?
- How many times should the system retry the phone number before it gives up?

For text messaging:

- Will you use the SMTP email-to-text?
- Will you use the SMPP true SMS messaging?
- Will content be limited to 180 characters?
- Will you use different SMS short codes for different uses?

For desktop alerts:

- Will different message templates be required?
- Will your alerts be sent to specific distribution lists or will they be broadcasted to select locations?

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Pre-implementation: Initiator Controls

In most implementations, initiators are tied to specific use cases and are assigned specific functionality. As well as the population of recipients they can select from, consider these other options:

- Which users can the initiator see in order to select recipients for their messages? Are they allowed to see everyone, or are there restrictions? What are those restrictions? Are they location-based restrictions or are they restricted to certain business functions?
- Can initiators build new distribution lists? Or are they limited to those they can see but not modify?
- What message templates will be given to which initiators?
- Will they be allowed to adjust the notification in general or will they be limited to simply filling variables in a form-based notification template?
- Will they be allowed to initiate by phone? Email? Mobile app? Or simply through the user interface?
- Are they allowed to add users not found in the system?
- Can they change the recipients that are preselected?

IMPLEMENTATION

Implementation: Standard Messages

With your pre-implementation steps completed and setup in place, it's now time to actually use the notification tool you've selected.

If you haven't already done so, define your standard messages. By following the concept of message mapping, you can build a comprehensive set of notification templates that can be used by everyone creating message content.

A comprehensive message map will contain many items, including:

- Scenario – When will this message be used?
- Message – Scripted content, and if necessary, with variables to be competed at time of message use
- Message formats – Custom messages for targeted devices: email, phone, SMS, desktop
- Who will initiate the message, and who has the authority to release this notification?
- Who provides message content?
- Must it be approved? If so, by whom?
- Who are the intended recipients?
- Will responses be required?
- Who should receive real-time reports of notification progress?
- How long should the message remain active?
- What devices should be used? In what priority?

Bonus Material:

To improve clarity and consistency, find on page 11 a complimentary sample message map checklist.

Implementation: Naming Conventions

It might sound unnecessary at first, but downstream you'll appreciate the simple discipline of establishing naming conventions for messages, templates, and distribution lists.

Establishing naming conventions early in the process will allow you to easily identify and find specific groups or message templates when needed. Without establishing these naming conventions, it becomes hard to identify and clean up older content, thus making it more cumbersome to navigate and find the right content.

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Implementation: Training

No matter how easy you think your notification system is for your initiators, it's always a good idea to train them—and not just once, but repeatedly. In many cases the notification system is not something that every initiator uses every day, day in and day out. Without regular use it may not come naturally. Sometimes infrequent or unfamiliar users forget to deploy the notification system until events are well underway; familiarity is key to getting the most out of your system.

Training for initiators should go beyond simply how to launch a notification. It should also include the guidelines they should operate within:

- Can they launch without approval or should they wait for the proper authority to approve the launch of the notification?
- Teach them to always send the message to themselves first to verify it is being delivered as anticipated.

- If initiators are allowed to craft their own message content, they should also know the recommended structure and message format to use. They should understand the standards established during pre-planning for message formats, response options and delivery options.
- How do they recognize notifications that do not meet the established standards?
- How do they recognize warning signs for an improperly crafted notification? Is the notification incorporating more recipients than anticipated? Is the notification too long? Contacting recipients too many times or too often?
- Teach them to test on a regular basis, making sure they are comfortable with making needed modifications when it's time to launch a notification.

It's important that your users understand why you've implemented a notification system and what the value is to them.

Training should not be limited to just initiators. Analysis shows that training recipients can produce a far higher response rates to notification. It's important that your users understand why you've implemented a notification system and what the value is to them. This is helpful in persuading engagement with the system, gaining and updating contact data, and even responding to and receiving messages left by the notification system. It's important that all recipients are trained to:

- Recognize a message from your organization
- Know how they should respond
- Know what to do it if they miss a message
- Know how to repeat a message

POST-IMPLEMENTATION

Congratulations! You've successfully implemented your notification solution. All your hard work is ready to pay off on in establishing a sound communication program. But hold on—you still have some ongoing responsibilities to ensure that your investment returns value.

Post-implementation: Oversight and Governance

A notification system can't be put in place and then forgotten; it will always require monitoring and oversight to ensure your intentions are implemented and remain in place over time. And there will probably be some need for adjustments over time, so all the better reason to keep a close eye on how the system is being used. That way, you can ensure consistency of messaging, regardless of the use or the initiator.

Part of oversight includes setting metrics to recognize the success of your solution. It's important you analyze message and contact device errors. Looking for gaps in contact information for recipients, or errors in attempts to reach certain devices needs to be monitored. Further analysis of response rates will help you mature the use of the notification system. Start by setting targets for optimum response rates, remembering that these may vary by use case.

Post-implementation: Testing

Once response rates are identified and communicated across the organization, it's important you continue to test your system on a regular basis and track response rates. Testing on a quarterly basis may be enough to keep users comfortable with receiving and responding to notifications. In developing your testing program, consider the following:

- Vary the time of day and day of the week
- Vary the sequence of devices
- Target different devices during testing

If testing reveals a lower than expected response rate, it may be a good idea to start with an occasional pre-announced test. Sometimes you may want to announce the exact time of a test, other times not. Use these tests as a campaign to show the importance of the system and explain that you'll be targeting a specific response. Not all tests should be pre-announced, but at the beginning the anticipation can help build interest.

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Post-implementation: Measure and Report

There is an old adage that "people don't respect what you don't inspect." This applies to their participation in your notification programs just as it does to other initiatives. So it's always recommended you measure and report the success indicated by your metrics.

It is also advisable to analyze notifications over an extended period of time, looking for patterns of non-response. Often you'll find that specific individuals are consistently not responding, or not responding correctly to notifications. This gives you the opportunity to follow up with those specific recipients to identify the cause and correct the pattern.

Make metrics part of your executive reporting. If you report by line of business and create a comparative analysis, you can often motivate the executives of each unit to emphasize the importance of notification and response to their employees.

Post-implementation: Expand

Once you have a system in place and working the way you want it to, you'll increase its value if you expand the use of it throughout your organization. This is good on several levels; by consolidating with one vendor you'll realize cost savings; the system will quickly be accepted as many of your users are already familiar with it; and you'll have a larger pool of trained initiators in time of crisis.

Many companies use a notification system for internal as well as external communication; consider expanding yours to include vendors, clients, your board and other stakeholders. In the case of a school or university, you can alert not just those on campus, such as faculty staff and students, but parents and guardians as well.

SUMMARY

It really is true that a great notification system can be used immediately upon acquisition—if you've carefully planned its implementation and use. The most successful solutions are those that are approached as a life-cycle project that follows a methodology you're probably already familiar with, which is simply Plan-Do-Check-Act (PDCA). By approaching the implementation of a notification solution with the same discipline you use with other programs, you're more likely to realize the full potential of your investment.

About OnSolve

OnSolve is the market leader in real-time, mass notification and collaboration solutions used by the world's largest brands and thousands of government agencies to deliver critical information in any situation. Mass notification and collaboration is an essential element of emergency response and business continuity planning, keeping teams on track and coordinating during critical events. The OnSolve suite of critical communication tools is a key component of the business continuity, emergency response, IT alerting, employee safety and security programs of every organization we serve. Visit us on the Web at onsolve.com.