



Telecom Solutions for the Healthcare Industry

January 2017

Introduction

The Healthcare IT industry has grown tremendously over the past ten years. The products and solutions available today have helped the healthcare industry become more efficient, more accurate, more profitable, and most importantly, they have helped lead to better patient outcomes. However, as technology advances and more products come to market, it becomes a challenge to choose new solutions that work well with your existing infrastructure.

USANotify / PEC provides communication solutions that integrate seamlessly with your existing infrastructure. Our goal is to help bridge the gap between your industry and the external communication network without rebuilding your existing IT infrastructure.

This paper explains several solutions and use cases for USANotify / PEC in the Healthcare industry. It also explains how choosing the right IT partners is the key to project success.



Our Experience

USANotify is owned and operated by PEC Telecom. PEC has been designing, developing and deploying telecommunications systems for many industries throughout the world since 1984. Presently, PEC has more than 10,000 installations in over 70 countries throughout the world. PEC understands the complexities and requirements of working in different industries and in different countries throughout the world. Whether we are working with 40 year old technology in remote regions of the world or with the latest technology in cutting edge facilities, we have the experience to make things work.

Solutions & Use Cases for Healthcare

Through our partners, USANotify & PEC products have been deployed in hundreds of major hospitals and health clinics around the world. Some facilities use our prebuilt solutions while others develop custom solutions to meet their unique communication needs. Our solutions support inbound & outbound voice calls, inbound & outbound SMS, outbound email messaging, text to speech, speech to text, conferencing, call recording, call transferring, call monitoring, database integration, in-depth call reporting, and more.

Use Case 1: Appointment Reminders

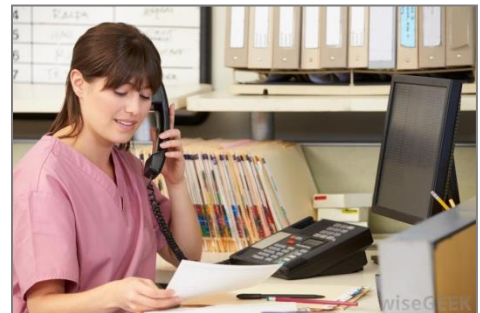
The most commonly used feature healthcare clients use in USANotify is the appointment reminder. This feature sends out custom reminder messages to patients about their upcoming appointments.

Why is this important?

Healthcare appointments are often made weeks or months in advance, so patients often forget about them. If a patient is not reminded properly, there is a good chance that he/she will miss the appointment. This is called a **No Show** and it has many negative consequences. First and foremost, the patient may be adversely affecting his/her health by foregoing needed medical services. Second, the appointment slot could have been filled by someone else that needed medical services. Finally, no shows cost the healthcare industry billions of dollars every year.

How do most facilities send out reminders?

By now, almost every healthcare facility has implemented some sort of appointment reminder solution. If not, the percentage of no shows would be through the roof! Most large practices and healthcare systems have implemented some type of automated reminder system. But, believe it or not, for a host of reasons, most small to mid size practices and some large systems still have office assistants making manual calls to patients. Typically, the office assistant will allocate a block of time to make these calls. During this time, the assistant will go through the appointment list and attempt to reach out to patients. If the patient wishes to cancel or reschedule, the assistant will take the necessary actions to accommodate.



What's the problem with manual calls?

The human touch of a live call is preferred by many people. However, from a provider's point of view, it's costly, ineffective, and a huge burden to the staff. Here are some key reasons why manual dialing is a problem:

1. ***It's a boring, tedious, mind-numbing task.*** Most office assistants dislike this part of their job description, and it increases the likelihood of them quitting.
2. ***Office assistants are busy, and they don't always have time to reach out to all the appointments.*** This means that some patients will not be reminded about their upcoming appointments, which increases the likelihood of a no show.
3. ***Office assistants typically make calls during normal business hours; that's the worst time of day to reach people.*** Many patients are working, at school, or unavailable during normal business hours. That means that office assistants encounter voice mails and no answers at a much higher rate than would be encountered calling after hours. Less people are reminded, less people confirm or cancel, and the likelihood of no shows increases.
4. ***Multiple reminders are not an option.*** Although the optimal reminder practice is to make two notifications prior to the appointment, office assistants are too busy and unable to make that second call. Also, patients may get annoyed if they receive two live calls.
5. ***It costs more than you think.*** The most efficient office assistant is able to make 30 calls per hour. At a cost of \$15 per hour, that's 50 cents per call. Assuming they speak to or leave messages for 20 of those people, the cost increases to 75 cents per reminder. Now consider that office assistants are typically not this efficient, few people answer their phones during the day, and office assistants usually cost more than \$15 per hour, and you can easily see that the actual cost per reminder is somewhere around \$1. We can take it even further. This boring task decreases job retention rates. Hiring and training new staff costs practices time, money and efficiency. It's a lose/lose situation.
6. ***People often ignore calls they don't recognize.*** That means that the office assistant is forced to leave a message for this patient. Although messages are effective, they are not nearly as effective as reaching someone live.
7. ***Language can be an issue.*** Office assistants may speak a different language than the patient answering the phone. This complicates communication and the proper message may not be delivered.
8. ***An office assistant making calls cannot do anything else.*** Making manual reminder calls is an inefficient use of an office assistant's time. The same person could be setting up new appointments, handling billing, or dealing with patients in the waiting room.

So why do some still make manual calls?

We conducted a survey to understand why many practices still make manual appointment reminder calls. The results were not surprising:

1. ***They think it's too expensive.*** We were surprised to find out that many practices that are manually reminding had actually tried automated reminding in the past. These practices were typically referred to reminding services by their EHR providers, and they were priced too high for the value they were delivering. Other practices that had never implemented an automated system had the perception that the price was too high in comparison to manually calling.

2. ***They're too busy to take the initiative.*** Established healthcare practices are always busy. It takes a conscious initiative for these practices to implement new IT solutions.
3. ***They think it's too complicated.*** Some practice owners believe that implementing an automated solution is too complicated and requires an IT expert to implement. The last thing a practice wants is for a new IT solution to complicate their daily routines.
4. ***They believe customers prefer to speak to a human.*** Many practice owners believe that automated messaging is too impersonal and that it reflects poorly on the practice. In addition, some made comments that automated messaging prevents them from rescheduling appointments on the fly.

So what's the best solution?

There is no perfect solution. No matter what solution you implement, no shows will still exist, and there will always be a cost associated with effective reminders. So, let's focus on the best solution. The best solution is one that accomplishes the following goals:

1. Reduces no show rate
2. Reduces cost of reminding patients
3. Reduces burden to office staff / reduces staff turnover
4. Minimizes annoyance to patients
5. Integrates seamlessly with daily routine

Reducing the no show rate

In all seriousness, this could be the topic for a doctoral thesis in economics. No show rates vary significantly based on demographics, education levels, income, and region. To complicate matters further, different healthcare specialties in the same hospitals see vastly different rates as well. For example, highly coveted dermatology appointments are rarely missed. Some practices even have to deal with patients not showing up even after they have confirmed their appointments.

In an ideal world, we could bring the no show rate to 0, but that's not feasible to accomplish in a cost effective manner. That doesn't mean we're helpless though. There are few techniques that practices can implement to reduce no shows effectively.

1. ***Implement a reminding strategy that combines technology with human intelligence.*** First and foremost, practices need to implement an automated reminding system like USANotify. These systems can run in the evening, when most people are available, and remind patients about their appointments via SMS, phone call, and email. They can also request a confirmation or cancellation request from the patient. When a patient chooses to cancel or reschedule, practices have 3 different options.
 - a. The reminder system can put the response directly into the practice's EHR system
 - b. Transfer calls to a live office assistant
 - c. Log it and then send a daily report to the office staff the next morning.

No matter which option a practice chooses, the technology element reduces a bulk of the load off of the office staff.

Here's where the human element comes in. For options A and C, when the office staff returns to work the next business day, they would have three tasks:

- Review the appointment reports and try to fill the newly opened appointment slots with other patients. This is often accomplished when patients call in to the office for emergency appointments. Other times, assistants can reach out to patients that have appointments later in the day to see if they are willing to move to an earlier appointment. This increases the likelihood of being able to fill the later appointment with an emergency call.
- Reach out to patients that chose to cancel or reschedule to set up a new appointment for them. It's important for the staff to thank the patient for cancelling in advance.

The primary goal of the office assistants is to fill appointment slots. Each empty appointment slot can cost the practice hundreds of dollars. By allowing the staff to focus on filling slots instead of reminding patients, their calling workload is decreased by up to 90%. It has a positive effect on no shows, staff retention, and profitability.

From our experience, when we send automated reminder messages (voice and SMS) out:

- Between 40-50% of patients respond to confirm their appointments
- 5% of patients respond to cancel their appointments
- 1% of patients respond to reschedule their appointments
- Of the remaining 45-55% of patients, 95% of patients receive a reminder message
- The rest of the patients are unreachable and do not have messaging

From our surveys, when manual phone call reminders are made:

- Between 25-30% of patients respond to confirm their appointments
- 10% of patients respond to cancel or reschedule their appointments
- Of the remaining 65-70% of patients, 75% receive messages

Assuming a small office has 100 appointments in a given day:

- Without an automated system, the office staff would need to make 100 phone calls and spend 3.5 hours per day. 30 patients would confirm their appointments, 10 would cancel or reschedule, and 60 would be left in limbo. It would cost the practice between \$50-\$60 in staff fees. The no show rate would be highly unpredictable.
- With an automated reminder system, 50 patients would confirm their appointments, 6 would cancel or reschedule, and the other 44 would be in question. The day after the first notification, an office staff member would call to reschedule cancelled

appointments. All 100 patients would be sent a follow up reminder the day before the appointment giving them an additional opportunity to call the office to reschedule. This would cost the practice less than half of the manual system, and it would result in a lower, less unpredictable no show rate.

2. **Inform patients about the importance of showing up on time.** Patients don't necessarily understand the effect that no shows have on a practice and on other patients. Whenever a patients sets up a new appointment, especially ones that are known for tardiness, the office assistant should inform them about the cancellation and rescheduling process.

"We will send out a text message or phone call reminder to you, whichever you prefer, 3 days before the appointment. If you need to cancel or reschedule the appointment, you simply have to reply to the message. We know your busy and you may forget, so we'll send out another reminder to you a day before your appointment. If you need to cancel or reschedule at that point – just give us a call."

If necessary, the office assistant can inform that patient about the importance of showing up:

"We understand you can't always make it to an appointment, but all we ask is that you let us know in advance. By not showing up or by showing up late, you take away a spot from someone that may really need medical attention."

Here is what a typical strategy may look like for a practice:

When Setting Appointment	3 Days Prior to Appointment	2 Days Prior to Appointment	1 Day Prior to Appointment	On Appointment Day
Inform the patient about the cancellation / reschedule process.	Make a voice call requesting confirmation, cancellation, or reschedule by keypad	Review cancellation list from previous day and focus on filling empty slots	Send an SMS reminder to the patient without the option of cancelling	Thank the patient for showing up on time.
If necessary, remind the patient that by not showing up, they are taking away the spot from someone that may need medical help	If there is no response to the voice calls (no answer, busy, no key pressed) send an SMS requesting a confirmation, cancellation or reschedule	Reach out to the patients that cancelled or rescheduled to set up new appointments	Accept cancellations and reschedules if the patients calls in	Don't make the patient wait too long to see a physician. If patients are waiting too long, rethink your scheduling process
Remind the patients that medical forms are available on your website and will be emailed to them prior to the appointment	Send an email reminder with detailed information regarding the appointment location, directions, date/time, and any necessary forms that may be needed			If the patient doesn't show up, don't charge a no show fee, but let them know that it didn't go unnoticed

This strategy is common, but may not work for all practices. For example, some practices find that their patient populations prefer SMS messages first. Others find it necessary to reach out 5 days ahead rather than 3. The best strategy is the one that fits a practice's daily routine and addresses the needs of its patient population.

3. **Work with your reminder service provider to analyze and adjust your strategy.** As technology advances and patient behaviors change, your reminder strategy needs to adjust as well. That could mean leaning more toward one messaging service or it could mean adding a whole new messaging type all together, such as Facebook Messenger. USANotify is always monitoring the patient landscape and updating its product accordingly.

Reducing cost of reminding patients

By implementing the strategies mentioned above, a healthcare practice is able to effectively reduce the cost of reminding patients while also increasing revenue by reducing the no show rate. Our customers have realized 40-60% savings over manual reminders, and 20-30% savings over other automated reminder platforms. In addition, our manual customers have been able to reduce no shows by 30-50% by implementing our automated solutions and strategies.

Reducing burden to office staff & reducing staff turnover

The turnover rate for medical office assistants last year was over 20%. That is extremely high, and it adds up to huge costs to practices. New hires have to be trained on procedures, software, and office culture. In addition, they make mistakes more frequently than seasoned staff members. We can't prevent everyone from quitting, but we can definitely reduce the likelihood of that happening.



By eliminating one to two hours of tedious, burdensome tasks from your office assistant's day, you offer him/her the opportunity to work on more interesting jobs that require more skills and keep them engaged. While this alone can't make a staff member love his/her job, it does increase employee satisfaction and increase the probability of them staying on board.


Minimizing annoyance to patients

In the 1980s, many companies adopted telemarketing into their marketing strategies. As other companies realized its effectiveness, it became more prevalent. By the late 1990s, the average US home received an average of 5 calls per night. It became annoying, and made people think twice about answering their phones if they didn't recognize the caller ID. In effect, it made it more difficult to reach people by phone, and it made them more sensitive to receiving calls in general. So how can we address this without annoying patients?

First, it's important to ask patients how they'd like to be contacted, by SMS, phone or email. Then, communicate to them that the office's automated system will be reaching out *n* days prior to the appointment to remind them. After that, practices should implement a reminder strategy that doesn't overwhelm the patient. We recommend sending no more than two messages in total to any given patient; once two to four days prior to the appointment, and another the day before the appointment. Choosing the right combination of messages is critical, and it may vary patient to patient.

In our experience, contrary to some of our competitors, we find that phone calls are the most effective method of communication. Phone calls allow you to communicate more information than a 160 character text message. Also, phone calls guarantee a result at the end of a call, whether it's a confirmation, cancellation, reschedule or no response. If someone doesn't answer or doesn't respond to a phone call, the system can easily send a text message a few minutes later. Each method of communication has its pros and cons:

	PROS	CONS
Voice Calls	<ul style="list-style-type: none"> Everyone has a phone Immediate response Control user errors Can leave messages Detailed messages 	<ul style="list-style-type: none"> Must answer for response Messages can be long Easy to forget details Don't know who answered
SMS	<ul style="list-style-type: none"> Most people have SMS Respond anytime Refer back to message Click to add to calendar 	<ul style="list-style-type: none"> Limited to 160 characters Cannot control response Regulating body can stop
Email	<ul style="list-style-type: none"> Most people have Email Respond anytime Most dynamic messages Can send attachments Refer back to message 	<ul style="list-style-type: none"> Many people don't check it Some are treated as Spam May require opt-in
Messenger	<ul style="list-style-type: none"> Many people have access Interactive messages Refer back to message 	<ul style="list-style-type: none"> Strict regulations on messages Controlled by third party Many people don't check it



Integrates seamlessly with daily routine

Companies usually think long and hard before introducing new technologies into the workplace. Employees are comfortable with what they know and are often reluctant to adopt new systems and processes. Also, every new technology requires a learning curve, and that can be frustrating for any

staff. Ultimately, however, this new process or technology should improve the lives of employees, patients/customers, and stakeholders.

Our goal at USANotify is to implement solutions that simplify daily routines with minimal training required. If possible, we'll even modify our software to work around a staff's routine so the staff doesn't have to work around ours.

Use Case 2: Broadcast Notification

Another commonly used feature in USANotify is broadcast notification. Although this feature is used more heavily in different industries, it is used by our healthcare clients as well. This feature sends out targeted messages to small or large groups of patients/customers.

Why is this important?

Communication between any business and its customers is paramount. This is especially true between a healthcare facility and its patients and staff. Poor communication can lead to confused and frustrated patients, gaps in staff schedules, and uninformed patients. In the healthcare industry, majority of broadcasts that we send out are related to inclement weather or the unavailability of specific physicians. In the event of snow, for example, offices can broadcast a message notifying all patients for the next day that specific locations will be closed. This saves patients the burden of travelling to the facility.



Several other messages have proven helpful as well. For example, construction notices have prepared patients and staff for changes in traffic patterns and parking arrangements. Also, in countries like Sierra Leone, we were able to make broadcast notifications to keep citizens informed about the Ebola outbreak.

How else can broadcast messaging be used?

Here are list of ways healthcare companies have used USANotify broadcast messaging:

- Vaccination reminder messages
- Last minute office closures
- Inclement weather notifications
- Traffic re-routing or parking changes
- Change of physical address
- Promotional broadcasts (Botox™ etc)
- Monthly newsletters

How do most facilities send out broadcasts?

Most healthcare facilities have implemented some sort of method to notify patients and staff when there is important information to announce. Most facilities, large and small, have two ways of disseminating information:

- Email broadcast using a standard email client
- Notify patients and staff with a prerecorded message when they call in

Some small facilities have their staff manually call out to patients and staff. Some facilities update their websites, Twitter or Facebook accounts to provide the information. However, very few facilities have implemented effective, automated solutions to broadcast messages.

What's the problem with the way most facilities send broadcasts?

Broadcast notification messages are not always critical. In these cases, if a patient or staff member doesn't get the message, it won't cause any harm or inconvenience to anyone, and the existing methods used by healthcare facilities are just fine.

More often than not, however, broadcast notifications are sent out to inform people about unforeseen circumstances, such as inclement weather, a sick physician, or a change in scheduling. In this case, it's important to use the most effective methods of communication to disseminate information. Here's the problem with the way things are done now:

Email Broadcast from Standard Client:

- This requires staff to have a complete, up to date list of email addresses for all patients and staff. This is almost never the case.
- Sending bulk emails from a client such as Outlook is likely to result in low delivery rates. This means that not all patients and staff members will actually receive the email.
- Many people do not check their email regularly. This means that they may check it after its effective date

Notification on Inbound Calls:

- This requires someone to call in proactively before receiving the information. If they do not call in, they will not receive the information.
- If there are not enough telephone lines, many callers will receive busy signals, and they will not receive the information.

Manually Calling

- This requires one or more dedicated staff members to reach out to the contact list in a short period of time. This may work for small practices, but for larger facilities, it is not feasible
- Not everyone answers their phone.

So what's the best solution?

The best solution is one that accomplishes the following goals:

1. Deliver a large number of messages in a short period of time

Time constraints are an important factor when broadcasting. For example, if it starts snowing at 6 PM, and a facility has made the decision to close the following day, they can only reasonably reach out over the next 3 hours. For a facility with 1,000 appointments the next day, they would need 12 employees to accomplish this. With a capable automated system, such as USANotify, this can be completed in minutes.

2. Deliver messages at an effective time of day

Your solution should be able to reach out to patients and staff at any hour of the day that you see fit. USANotify allows you to schedule a broadcast.

3. Deliver messages on demand

If you need to send out messages now, you shouldn't have to wait for staff to be available. Solutions like USANotify allow you to initiate broadcasts immediately.

4. Deliver messages across multiple mediums to get maximum exposure

The most effective way to reach people is to reach out to them via every touch point you have available. Phone calls, text messages, emails, Twitter, Facebook, and your website are all effective means of communicating. By combining these tools, you have an extremely high likelihood of connecting with your patients and staff. Tools like USANotify allow you to reach out via phone, SMS and email quickly and painlessly.

5. Deliver messages to the right group of people

Some facilities only have the ability to reach out to a predefined list of all patients and staff. Even if the message is drafted clearly, this creates confusion for many recipients that the message was not intended for. On the other hand, if the list is not complete, the message will be under-delivered, and some patients and staff members will be left in the dark.

By using a system like USANotify, you are able to choose the group of people you wish to contact along with the communication method you wish you to use. For example, if you need to contact patients with appointments over the next two days for a specific location via phone and SMS, you can do it. If you need to send a broadcast to staff only, that's possible too.

Use Case 3: Patient Compliance / Medication Reminders

The Department of Health and Human Services (HHS) in the United States has recently had a major push to reduce overall cost of care in the country. In its effort to accomplish this goal, HHS has given new guidelines and incentives to healthcare providers and healthcare related services to make this happen.

HHS has identified patient compliance as one of the most critical factors affecting cost of care. In fact, medication noncompliance alone costs Americans hundreds of billions of dollars every year. It's no surprise: patients that maintain regular doctor's visits and manage their medication properly have better health and lower overall cost of care than those that don't.

Automated notification systems, like USANotify, can play a major role to help increase patient compliance and reduce cost of care.

With the proper integration, pharmacy benefit management (PBM) companies and other healthcare service providers can use USANotify to send out notifications to patients regarding their medication. Typically, PBMs use solutions like USANotify to let customers know that their medication is ready for pickup, or in the case of mail-order pharmacies, that the medication has been mailed. PBMs can also use USANotify to send out reminder notifications to patients to take medications at a specific time.

USANotify will also work with healthcare providers to develop new, custom tools to help improve patient compliance. (see Use Case 4)

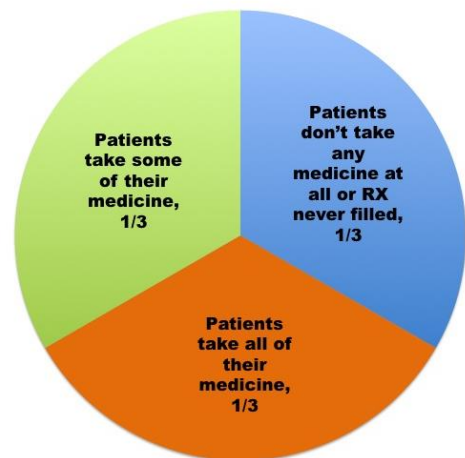
Use Case 4: Custom Call Flows

Over the years, hundreds of companies, health and non-health related have come to us to develop custom communication solutions. Utility companies, beverage companies, travel agencies, insurance companies, healthcare integrators, telephone companies, universities, military bases, pharmacies and others have come to us to take their plans and turn them into a reality.

In the healthcare industry, companies like Cerner have used our products to deploy medical transcription applications in hundreds of hospitals and clinics around the world. Medical research companies have used our platform to conduct ongoing research surveys. Pharmaceutical companies have used the platform to authenticate medications delivered to pharmacies.

For healthcare institutions that need to develop custom solutions that USANotify cannot support out of the box, we can build a solution for you. The following is a partial list of features that our custom platform can support:

The true cost of non-compliance is staggering. Two-thirds of patients do not take their medications correctly.



Schering Report IX The Forgetful Patient: The High Cost of Improper Patient Compliance

- Inbound call support
- Outbound call support
- Outbound SMS
- Inbound SMS
- Outbound Email
- DTMF / Touch Tone Detection
- Play files
- Call scheduling
- Call conferencing & call patching
- Call transferring
- Call recording
- Message retrieval
- Broadcast notification
- Text to Speech
- Web based call reporting
- Database integration
- Voice to email
- Fax to email
- Email to Fax
- Launch external programs
- Support for up to 1,000 concurrent calls on a single platform
- Redundancy available

Custom solutions can be delivered as a hosted solution or can be deployed at the customer’s site.

Communication Creates Value

Here is a quick breakdown of the value proposition that solutions like USANotify can provide to healthcare providers:

- | | | | |
|-----------------|--|-----------------|--|
| <p>1</p> | <p>Appointment Reminders & Instructions
 Significantly reduce “no shows”
 Eliminate or reduce the need for dedicated employee
 Patient is prepared; Reduces time spent in office
 Increase revenue & profitability for practice</p> | <p>4</p> | <p>Vaccination Reminders
 Improve community health
 Increase revenue for practice</p> |
| <p>2</p> | <p>Medication Reminders
 Significantly increase patient compliance
 Reduce overall cost of healthcare
 Improve patient health outcomes
 Ideal for ACOs</p> | <p>5</p> | <p>Setting up future appointments
 Promote wellness
 Maximize practice revenue & profit</p> |
| <p>3</p> | <p>Postoperative Reminders & Education
 Significantly increase patient compliance
 Reduce infection rate
 Reduce overall cost of procedure</p> | <p>6</p> | <p>Newsletter broadcasting
 Promote wellness through education
 Create a brand image for the practice</p> |
| | | <p>7</p> | <p>Promotional Broadcasts
 Generate revenue through targeted marketing</p> |

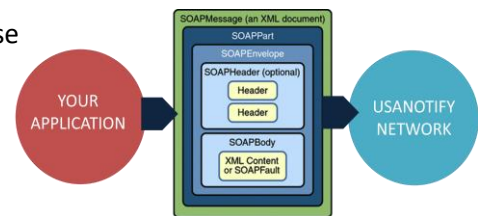
Notification systems are not all created equal

When you are choosing a notification system, it's important to look at several factors:

1. Ease of Use & Integration

The USANotify management portal is accessible through your desktop and smartphone web browsers. The interface was designed to be intuitive and friendly. Administrators are given access to all features and reports, and can simplify other user experiences by limiting access to irrelevant features and tools.

For a more integrated experience, many users choose not to use the USANotify portal at all. Instead, these facilities choose to integrate their existing EHR portals with USANotify using our API. In some cases, USANotify can work in reverse by integrating its portal with the facility's EHR.



2. Features

When evaluating any new technology, one of the most important things to consider is the feature set available to you. In some cases, the feature set may be limited and will not offer you the tools you need to accomplish your goals. In other cases, the feature set may be beyond the scope of what you need, in which case you may be paying for tools you have no intention of using.

USANotify is constantly surveying the market and developing new features to keep the product relevant. The following is a partial list of features presently available:

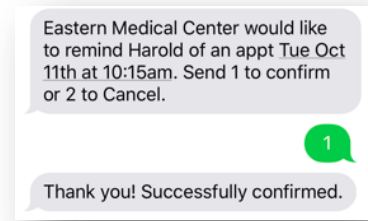
- **Dynamic Voice Messaging**

Voice messaging is the ability to make phone calls to patients and staff with the intent of delivering a message if the phone is answered. Below is a list of highlights related to our voice messaging feature:

- | | | | |
|--|----|----|--|
| Multi-engine support scales to thousands of concurrent calls | 01 | 06 | Use variables to customize voice campaigns |
| Create unlimited custom IVR call flows | 02 | 07 | Throttle calls for each client to control pacing |
| Detects answering machines vs. live answer | 03 | 08 | Text to speech |
| Ability to transfer calls to a live agent | 04 | 09 | Flexible rate management to bill calls |
| Customize the definition of each customer response | 05 | 10 | Do Not Call list |

- **Dynamic SMS/Text Messaging**

Short Message Service (SMS) also known as text messaging was introduced in the 1980s and became the de-facto standard for mobile phone messaging in the 1990s. Today, almost 4 billion people around the world have immediate access to SMS. USANotify supports both inbound and outbound SMS.



Below is a list of highlights related to our SMS feature:

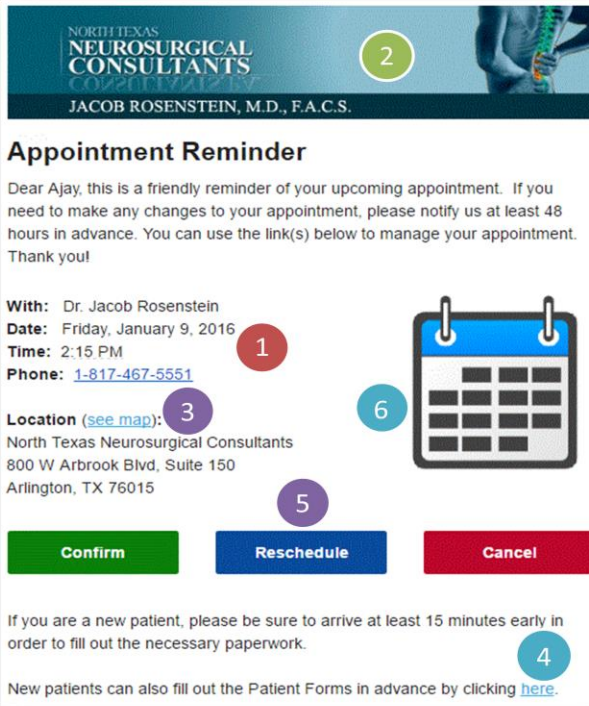
- | | | | |
|--|---|---|--|
| <p>01</p> <p>SMS numbers are local to you</p> | <p>02</p> <p>Dedicated SMS number for each client</p> | <p>03</p> <p>SMS throttling paces message delivery</p> | <p>04</p> <p>Customize SMS using variables</p> |
| <p>05</p> <p>Customize SMS response options to place in report</p> | <p>06</p> <p>IVR or call transfer when patients call SMS number</p> | <p>07</p> <p>Option to auto-respond to a patient's response</p> | <p>08</p> <p>Do Not Message list</p> |

- **Dynamic Email Messaging**

Email messaging has become a standard and accepted messaging tool with over 3 billion users worldwide. Email allows us to send detailed messages with graphics, links and clear formatting. Here are some of the highlights of USANotify's email feature:

- | | |
|--|---|
| Customize E-mail for each client using variables | Do not E-mail list |
| Change E-mail settings "on the fly" | Customize E-mail response options to place in reports |
| Ability to send links to maps | Add directly to calendar app (Google, Outlook) |
| Ability to send links to patient forms | Customizable E-mail confirmation landing page |

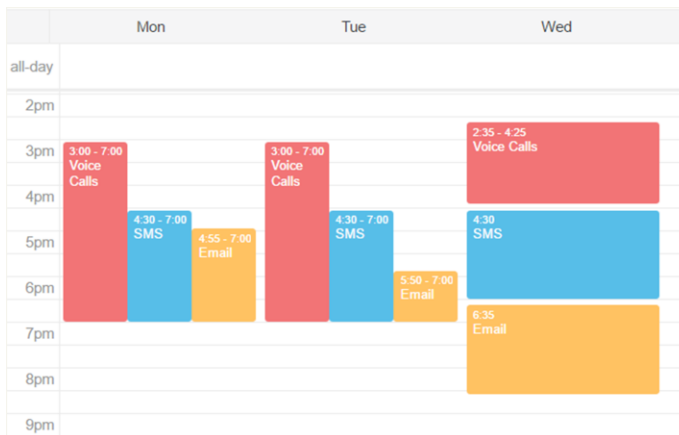
Below is a sample email with an explanation of the different customization options available:






- 1 *Dynamic content based on type of appointment & provider*
- 2 *Send custom images & logos*
- 3 *Send map location links*
- 4 *Send links to patient forms*
- 5 *Dynamic buttons for response*
- 6 *Auto add to device calendar*

• **Flexible Scheduling**

Using USANotify, Administrators can set different schedules for delivery of different types of messages. Schedules consider time of day, day of week as well as holidays.



-  **Scatter delivery of various message types**
-  **Create different schedules based on day of week**
-  **Create unique schedules for holidays**

- **Multiple Departments**

If a facility has multiple departments, such as Dermatology, Sports Medicine, etc, USANotify allows Administrators to create unique accounts for each of them. Each department can have unique, custom messages with different schedules.

- **Multiple Physicians**

In most cases, a specific department has multiple physicians. With USANotify, messages are customized using the physician’s name, and reporting is organized by physician as well. In addition, when initiating a broadcast message, users can specify which physician to broadcast for.

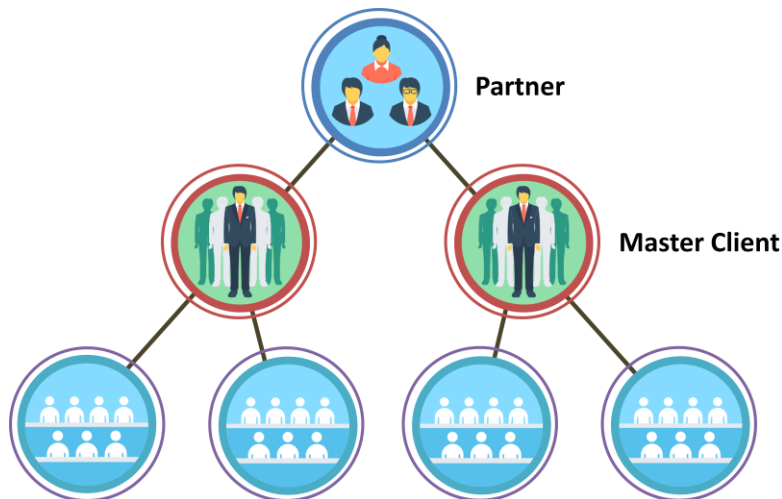
- **Multiple Locations**

In many cases, specific offices have multiple physical locations. USANotify has the ability to customize messages based on the office location. Contact lists for broadcast messages can also be narrowed down by location.

- **Multi-Level Access**

Many products in the market only allow for one user per account. This means that if there is a facility with multiple departments and multiple users per department, there is no ability to dedicate one person to manage and view multiple users. USANotify was developed using a hierarchy model.

- *Partners* are companies that manage multiple healthcare facilities that are completely independent of each other.
- *Master clients* are users that can manage multiple departments or clients with the ability to make changes and view reports
- *Clients* are specific departments or offices. Clients can manage their own appointments and broadcast messages.



- **List Management**

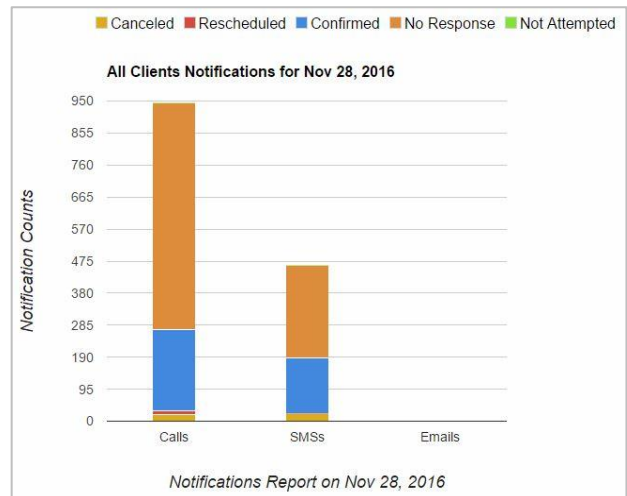
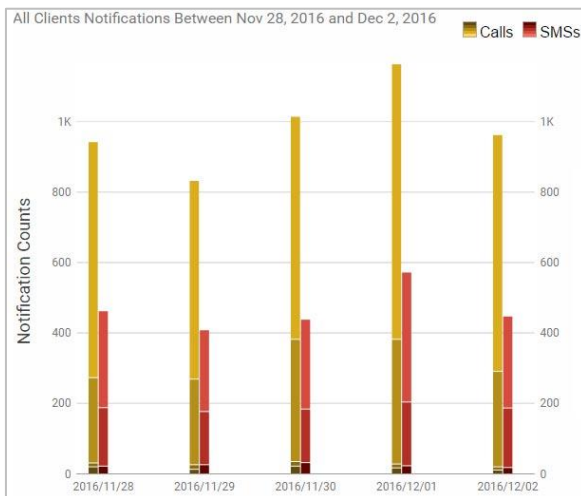
List management refers to the ability to use, add, modify, import and export lists of patients and staff. Most products in the market have rigid formats that require your EHR and patient management systems to comply with their standards. USANotify was designed from a different approach that allows you to keep the structure of your data as is. Our system actually conforms to your data. Here are just a few of the highlights of our list management tool:

- Use your own custom fields with campaign-specific data such as date of birth, etc
- Import hundreds of thousands of records at a time
- Flexible field mapping makes importing easy
- Automatic import from a specified folder
- Multi-provider support
- Multi-location support
- Create broadcast lists “on the fly” from appointments
- Add & update records manually
- Supports CSV & XLS formats

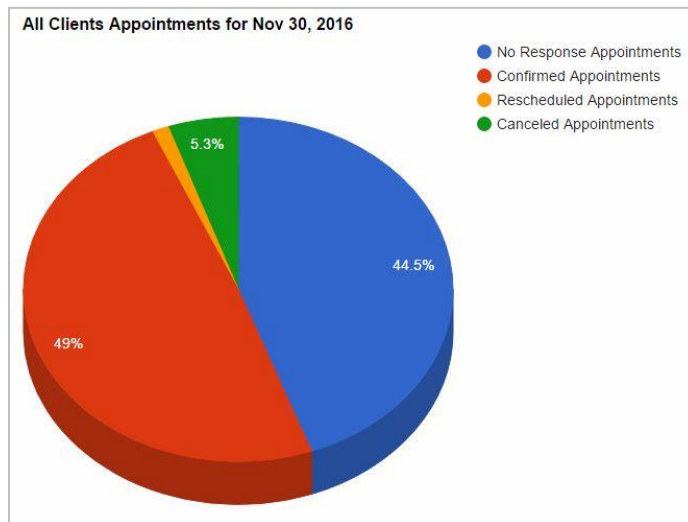
- **Reporting**

Proper reporting tools give you quick and in-depth insight into the status and outcomes of your communication campaigns. The data should be presented clearly in both graph and summary formats. Here are few samples of the reports USANotify provides you with:

Graph of Daily and Weekly Notifications



Appointment Status Report for One Day



Appointment Summary Report

This report provides a table summary of all clients and their appointment status for a specific time period. It indicates how patients were notified and whether or not they responded. This report presents real-time data. We do not have any samples of this report without personal data.

Daily Appointment Detail Report

This report is sent to staff members once per day at a specific time. It delineates each appointment and all of the details correlated with it, including patient details, provider details, how patients are notified, when and how patients respond. We do not have any samples of this report without personal data.

- **Cloud or Premise Based**

USANotify understands that every company has its own security policies and practices. Having deployed solutions at military bases and natural gas utility companies, we understand that some companies and institutions cannot use cloud solutions. USANotify is one of the only products in the market that can be deployed in the cloud or directly at a customer's site.

3. Value

Surprisingly enough, when companies make decisions about implementing new technology or tools into the workplace, they don't always assess the value before moving forward. Instead, companies usually focus on features, price, and presentation. When choosing any new technology, a company should weigh the benefits against the cost, with cost encompassing all of the resources required to implement and use the technology. As is the case in many industries, pricing for communication solutions range across the gamut. Companies need to ask themselves the following question to determine the value:

- Will this product or service save us time?
- Will this product or service save us money?
- Will this product or service help us attract new customers?
- Does the product or service lack features that we need? Are those critical?
- Does the product or service go too far beyond the scope of what we need?
- How does the price compare to competitors with similar features?
- What are the upfront costs? Recurring costs?
- Do the benefits outweigh the time, effort, and money we will need to invest?

Determining the value of a product or service isn't always straightforward since there are so many factors at play, but it's important to figure out before making any decision about a new technology investment.

4. Security

Security is a broad term that encompasses all of the physical and intangible tools and processes put into place to protect your system and data (including Protected Health Information) from intentional and unintentional misuse. USANotify takes security seriously, and we have implemented the following measures to ensure the security of our environment:

- **Physical Security of Equipment** - All of our equipment is stored in a Tier III data center with access granted to limited staff members. The facility has 8 checkpoints before gaining access to equipment, including 4 keycard checks, 2 digital codes, one retinal scan, and one manual code.
- **Physical Firewall** – USANotify uses the latest firewall technology to control access to users before reaching equipment
- **Software Firewall** – Access to each USANotify installation is granted only to IP Addresses and users authorized by Administrators
- **API Restrictions** – API access is granted to specific IP Addresses only regardless of the username and password used to access
- **Login Limits** – Users are limited to 5 login attempts before being refused access to the portal. After that, users must contact an Admin.
- **Query Logging** – Every action performed on the USANotify platform is logged in depth in case future reference is required
- **Access Logging** – Every login attempt is logged
- **HIPAA Compliant** (Click [here](#) to see policy)

- **Security privileges** – Administrators and Partners can grant or deny access to specific features on the portal. See image below:

Permission Name	VIEW	ADD	EDIT	DELETE	IMPORT	EXPORT
CLIENTS	<input type="checkbox"/>		<input type="checkbox"/>			
CLIENTSETTINGS_SCHEDULE	<input checked="" type="checkbox"/>		<input type="checkbox"/>			
CLIENTSETTINGS_CALL	<input checked="" type="checkbox"/>		<input type="checkbox"/>			
CLIENT_APPOINTMENTS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLIENT_BROADCASTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLIENT_DNC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLIENT_BROADCASTLIST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLIENT_INVOICES	<input checked="" type="checkbox"/>					
CLIENT_APPOINTMENT_REPORTS	<input checked="" type="checkbox"/>					
CLIENT_APPOINTMENT_TEST		<input checked="" type="checkbox"/>				
CLIENT_BROADCAST_REPORTS	<input checked="" type="checkbox"/>					
CLIENT_BROADCAST_TEST		<input checked="" type="checkbox"/>				
DISPLAY_CLIENT_STRING_AS						

5. Reliability

What good is any technology if it's not working properly or produces inconsistent results? Reliability of technology is usually assumed, which is a mistake most companies make. There are several factors that determine reliability, many of which are beyond the control of your technology vendor:

- Equipment location – is it secure with stable power?
- Does the equipment have redundant power supplies?
- Are the software applications are mature and stable?
- Does the Internet connection have a redundant backbone (BGP)?
- Does the vendor rely on any third party applications or services? Are there failover options?

The truth is, despite all of the reliability claims a vendor makes, issues will arise; it's inevitable. In 2014, Wells Fargo Bank's customer portal was down for almost 4 consecutive days. In 2015, Amazon Web Services (AWS), the service that hosts millions of websites, was down for entire night. In many cases, especially for applications that run only during specific times of the day, outages go unnoticed and have no effect on your business. In other cases, outages can cause frustration and confusion for staff and customers. The bottom line is that it's important to assume that outages will occur – so be sure to ask your technology vendors the following questions:

- Is our data backed up regularly? How often?
- What was your downtime last year?
- How long was your typical outage last year?

- In the event of an outage, what procedures do you follow?
- Is our data backed up regularly?

6. Experience

If you've visited Silicon Valley recently, you've witnessed the recent technology boom firsthand. But Silicon Valley is just one example of the many tech booms occurring all over the world. With so many contributors to the global knowledge pool, technology capabilities have accelerated at unprecedented rates over the past few years. It's exciting, and startup companies with new and innovative ideas are popping up all over the world, funded by venture capitalists and angel investors hoping to cash in.

But there's a problem, and many investors are beginning to realize it. Many of the startup companies are founded and operated by individuals that have little to no experience in the industries they are creating products or services for. In the end, after millions of dollars have been spent, the results are often fun and exciting tools that have no practical or truly beneficial applications. That's where experience comes into play.

An experienced company, like USANotify, understands technology trends as well as market demand, and figures out how to combine the two. USANotify only designs features and services that add value to its customers. Also, companies like USANotify have experienced and overcome the unforeseen problems that can occur out in the field in different environments.

Nothing can replace experience, and we have a lot of it:

- ✓ Managed by healthcare notification experts
 - 15+ Years of experience
 - Worked with hundreds of practices
 - Understands healthcare concerns & requirements
 - Quick and accurate turnaround times for change requests
- ✓ Powered by our battle-tested telecom engine
 - 32+ years in development
 - Deployed by Cerner in hundreds of hospitals around the world
 - Used by US Army, US Air Force, Natural Gas Utilities, AAA
 - Handles millions of calls per day