



VONAGE

Cloud Communications in Healthcare

How to Improve Patient Experience, Maximize Revenue, and Handle Information Securely



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The Modern Healthcare Industry: Challenges and Opportunities

Healthcare

The COVID-19 pandemic reminded us that healthcare work is often physically, mentally, and emotionally demanding, and full of endless red tape. And yet, despite the early mornings, 24-hour shifts, and occasional heartbreak, passionate healthcare providers improve lives every day.

From patient experience and regulatory compliance to revenue and profitability, there's a lot at stake for today's providers. Yet years of disparate technologies, policies, and processes stifle many organizations and make efficiency difficult.

Patients expect value-based care, which means that providers must deliver outstanding service and results. At the same time, patients are more savvy, and are more informed and comfortable managing their own care. Whether a patient is scheduling a video consult with their physician or receiving a follow-up appointment reminder, patient experience is crucial to the savvy consumer.

In this guide, you'll learn how the right cloud communications platform can improve patient experiences and enhance healthcare practice operations to be more secure and profitable.

Cloud Communications Table Stakes

Healthcare organizations have unique cloud communications needs, so it's important they choose a **unified communications** provider that can satisfy those needs. Here's what to look for in a vendor's offering.

Security

Communications companies have a tremendous responsibility to safeguard the sensitive data healthcare customers trust them with, and the best approach to information security is a holistic, aggressive one. **HIPAA** compliance is crucial. Independent third-party certification of compliance with recognized standards such as HITRUST can be strong evidence that the service provider has in place strong administrative, technical, and physical safeguards to ensure the security and confidentiality of critical data including PHI. (We get into this more in Chapter 3.)

The networks themselves should be secure, offering stateful firewall protection, voice traffic encryption between handsets, and system hardening procedures at each co-located data center. For features like Call Recording, Paperless Fax, and Voicemail, data should be transmitted and stored encrypted within one environment, with strictly enforced access-control protocols.

Reliability

Reliability needs to be guaranteed for healthcare organizations, generally by a high financially backed uptime SLA. That means your service provider should run multiple redundant call-handling clusters in data centers across the country, with systems and protocols that ensure elevated uptime reliability. Additionally, in the event of power outages or loss of internet, features that enable the phone system to automatically reroute calls to a predesignated mobile or other number are critical in ensuring business continuity.

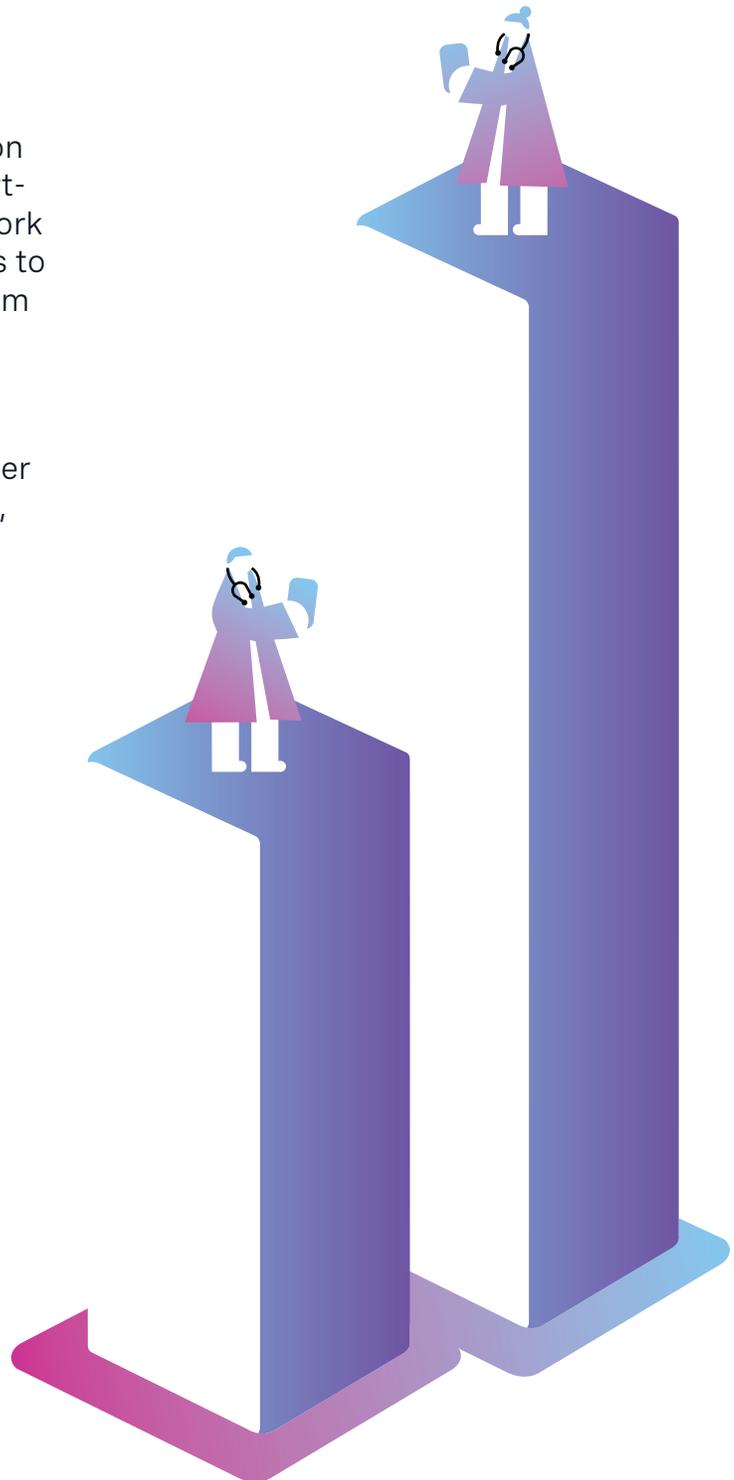
Mobility

By improving your organization's mobility, you can provide better care for patients from virtually anywhere, including in the office, at the hospital, on the road, or in the patient's home. How? Dedicated, easy-to-use mobile and desktop communications apps should be standard, with the ability to track and improve the productivity of mobile employees and an increased focus on patient care.

Scalability

You should also consider how the solution will support possible rapid growth. Cloud-based phone systems can easily and seamlessly scale up when employers adjust their staffing levels to meet seasonal or changing volume needs. Using the cloud lets software-based resources take the place of traditional hardware, making it possible to scale up available resources on demand. This could take the form of short-term increases to handle increased network traffic or long-term service commitments to supply new satellite offices and bring them into the fold.

Before diving into your healthcare organization's unique needs, ensure that any communications provider you consider has the table stakes — security, reliability, mobility, and scalability — covered.



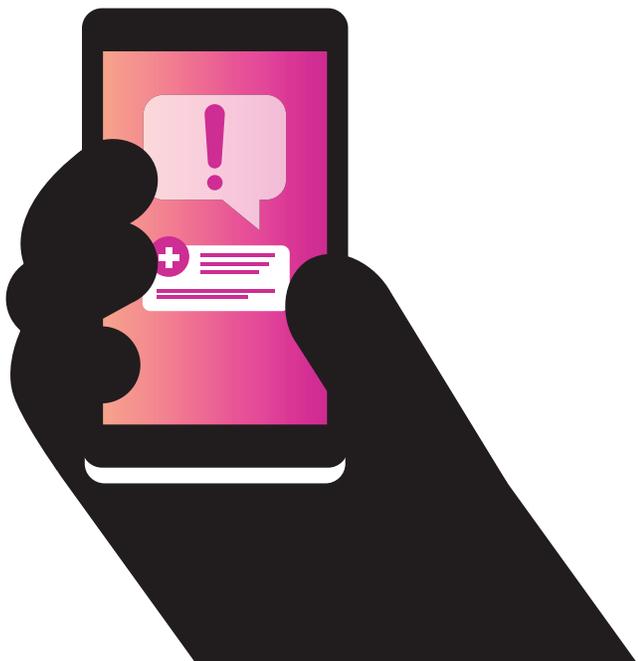
The Hidden Costs of No-Shows

The Challenge

Healthcare providers can help reduce their no-show rates with an outreach strategy.

There are many reasons why patients miss their appointments:

- Forgetfulness or too much time between the scheduling and the appointment
- Lack of reliable transportation to the appointment
- Emotional barriers, like anxiety regarding medical procedures
- A feeling that the office staff doesn't respect their time or needs



The Solution

A proactive outreach can remedy many of these issues — and cloud-based technology makes this easy to automate.

It's fairly simple to alert patients about upcoming appointments with an automated phone call or text message. Their confirmation is then updated in your practice management (PM) system, and the probability that they'll miss the appointment decreases — or, if they do miss, you have the time to schedule in someone else.

There are many other use cases for using SMS to communicate with patients — for example, patients can receive real-time information about wait times or be notified and directed to a secure portal to view test results as soon as they're ready. A practice can complement this with a proactive outreach strategy, too (e.g., automated messages with care/exercise tips, medication reminders, or post-op updates).

By communicating more often, you'll build a better relationship with your patients, which will greatly increase patient satisfaction and their overall experience.

The Tech

To set up automated texting or phone calls, you'll need to integrate **communications APIs**, like Vonage APIs, with your cloud-based phone number (preferably a local one, rather than an 800 number, to ensure more people actually respond/pick up) and your EHR or PM system. Then, you can set up automated communications and set conditions. For example, you could set a condition that 24 hours before an appointment, a reminder is texted, and a second condition that if the patient doesn't confirm, a phone call is then made two hours later. Setting up something like this is fairly simple, but it does require some development work.

Some best practices to implement when using automated text or voice reminders include:

- Getting explicit consent from customers to provide automated reminders via these channels, and making sure patients understand that texting may not be fully secure
- Validating patient contact information regularly

- Avoiding sending PHI via text, which may include information such as the practice's name, where the name itself is indicative of a specialty practice; businesses should be aware that due to the technical implementation and underlying infrastructure of today's SMS deployments, it may be challenging to achieve a HIPAA-compliant service that transmits PHI within the content of the SMS body itself
- Considering alternatives if PHI must be disclosed, such as including links to message content within a secured platform.



Improving Your Security and Compliance Posture

The Challenge

If you're in the U.S., you likely already know that any type of healthcare provider that accesses, collects, or transmits protected medical information must adhere to HIPAA's guidelines. And perhaps you haven't moved to the cloud for fear that it's not a secure way to communicate with patients. Penalties are steep: Fines for non-compliance with HIPAA can reach into the millions of dollars — and that doesn't include soft costs like lost trust with your patients.

It's wise to be concerned: Breaches happen, almost daily — just look at OCR's "**Wall of Shame.**"

But not moving to the cloud due to fear of non-compliance will hurt your competitiveness in the long run.

Using the cloud for communications is essential for the modern healthcare organization in a value-based care world. Without cloud communications, offering outstanding patient experiences (while also creating internal efficiencies to maximize revenue) becomes very difficult.

With the right partner and the right tools, you can ensure your patient information will stay secure while your practice meets HIPAA guidelines.



The Solution

One of the most important things you can do to ensure HIPAA compliance begins with your communications provider, also known as a Business Associate. According to the **Department of Health and Human Services**, the HIPAA Privacy Rule requires all covered entities to have Business Associate Agreements (BAAs) with third-party vendors to regulate how electronic PHI is created, received, maintained, or transmitted.

Many cloud communications providers and business associates, however, operate without HIPAA-compliant technology or BAAs, putting their organizations at risk for penalties.

Establishing a solid BAA agreement can go a long way toward managing compliance risks.

You should ensure your BAA agreement covers the key areas of HIPAA compliance, including, without limitation, the rules regarding the access to PHI, security, and privacy. The BAA should note that the provider agrees to comply with applicable HIPAA requirements and stand ready to verify such compliance. Providers who go beyond a self-certification process to obtain third-party certification of HIPAA compliance — such as HITRUST — provide further compliance reliability.

All cloud providers are not the same. Before entrusting them with your sensitive data, do your homework and understand the level at which they can support HIPAA compliance.

Carefully evaluate your vendor and the solution they provide. Ultimately, your partners should be actively contributing to making your organization more safe and secure. Protecting PHI is paramount to patient privacy and compliance with current regulations.

Finally, before undertaking a cloud-based solution, be sure to consult your legal advisers to understand the HIPAA requirements applicable to your business, potential liabilities, and what you should be requiring of your cloud providers.

Improving Experiences With the Modern Healthcare Contact Center

The Challenge

Patients who feel unwell want quick access to information when they reach out to a doctor's office. When patients are unable to connect with someone who can answer their questions – or worse, are left to languish on hold – their satisfaction levels drop fast.

Additionally, today's patient may not want to call in or speak to someone – the modern consumer has very high expectations for how they like to be communicated to. Patients are healthcare customers, and customers want **conversational commerce**. They want to **connect in other channels**: phone, chat, text, and even social media, like Facebook Messenger. The practice that makes it easy for patients to contact it in a variety of ways will naturally have higher rates of satisfaction – and higher retention rates.

Plus, in many practices today, there's a lot of human capital involved in patient interactions. Office admins have to handle patients filling out paperwork in person, along with phone calls for people who need refills, want to make appointments, or need help with a post-care referral. If you remove the inefficiencies, your staff can better focus on the patient, saving your company time and money. The simplest, most efficient way to ensure you're connecting with patients the way they want? A **modern healthcare contact center**.



The Solution

When you think of contact centers, do you think of busy agents frantically answering angry callers who've been hearing "press 1 for" for way too long? Good news: That's from the era of contact centers past. Today's modern contact center can route callers through a single phone line regardless of the initial number they dial, presenting patients with a consistent experience that is clear and easy to navigate. It can offer contextual technology to guide people to the right person to answer a question. Great healthcare contact centers leave patients happier than when they called, and save healthcare providers time and money.

A cloud-based contact center can also automate many daily tasks using technology, like scheduling appointments, prescription requests, and cancellations. So, there's no need for anyone to actually pick up the phone — freeing up time spent on these tasks. With dedicated call routing, you can also better handle post-care referrals and follow-up appointments, which can help generate a significant amount of revenue, especially in specialties like family care or emergency medicine (including urgent care centers and GPs).

It's also easy to make your office even more efficient by integrating a contact center with an EMR or other business application. With an integration, when a patient calls into the office and is routed to the right place, the number is recognized through the EMR, and a "screen pop" will show up with the patient's information and the reason for the call.

The bottom line? A great contact center helps improve patient satisfaction, retain more patients, and improve cost efficiencies.



Automating Scheduling to Fill Canceled Appointments

The Challenge

There's no such thing as planning a health emergency: In some cases, patients need same-day appointments. When this happens, their choice of provider is often decided simply by who's available. For healthcare providers, scheduling last-minute appointments is incredibly difficult — it takes a lot of administrative time and effort and is often dependent on keeping up to date on last-minute cancellations. But being able to provide same-day or next-day appointments is the simplest way to both improve the patient experience and manage your revenue cycle.

The Solution

No-shows are inevitable but manageable, especially if it's easy to fill canceled appointments with technology by using targeted text messages, a calendar-scheduling application, and a well-integrated EMR system.

Imagine how easy it would be if you could implement this solution:

- 1. A patient cancels their appointment.**
This kicks off an automated alert within your EMR or PM system.
- 2. Your practice sends out an automated text or phone call to patients on a waiting list,** letting them know a new slot has just opened up.
- 3. The first patient to respond (either by calling back or clicking a link in the text) gets the appointment,** everyone else is alerted automatically with another call or text.

How it Works

Healthcare providers need three tools to prepare a solution for filling canceled appointments:

- 1.** A targeted text message platform, like **Vonage Reach**, or an API platform like the Vonage API platform
- 2.** A calendar-scheduling application that integrates into your EMR or PM system
- 3.** A list of patients who have opted-in to marketing communications (which is a HIPAA requirement, so be sure to choose a HIPAA compliant provider)

With the right API platform, you can build automated messaging functionality right into your PM system. Obviously, in larger enterprises, this requires development work, so it's important to find a partner — with enterprise-level service experts — who can help you build out your dream solution without tying up critical resources.

Build (or Buy) a Telehealth Solution

The Challenge

For some patients, especially the elderly or those in rural communities, geography or the ability to travel are major barriers for access to a healthcare practitioner. For busy professionals, wellness visits aren't top of mind. For new, frantic parents with a screaming baby at midnight, the potential of an extremely expensive, exhausting urgent care visit – just to learn the baby is teething – isn't a happy scenario.

Consumer healthcare costs are at an all-time high. On the provider side, healthcare organizations are facing funding gaps and a short supply of staff. Driving operational and cost efficiencies, along with offering excellent value-based preventative care, are top of mind for providers.

What can healthcare providers do to meet these challenges, while delivering personalized, patient-centered care to those who need it, when they need it, wherever they are?

The Solution

Telehealth is becoming a major part of digital transformation for healthcare providers because of its ability to solve many of the challenges outlined above – and at a cost savings for both the patient and the provider.

A January 2022 [datasheet from Cigna](#) noted that the “average cost for a low-acuity virtual care visit is \$93 less expensive than an in-person provider visit, \$120 less

expensive than a specialist visit, and \$141 less expensive than an urgent care facility.”

There are many, many applications and benefits to telehealth – from remote video consultations to therapy to nutritional consulting to tele-ICU systems where hospitals can centralize real-time patient monitoring through remote observation. But the primary benefit is that it enables many patients' immediate access to healthcare professionals.

Telehealth allows patients to see care providers that they would not have had access to previously. It's convenient, inexpensive, and immediate. And this technology goes beyond simply enabling e-visits for primary care purposes. It taps into the power of telemedicine technology to empower doctors, nurses, and other wellness professionals to reach patients who might otherwise not receive the specialized care they need.

For healthcare practices, telemedicine also helps reduce costs by optimizing physicians' time and lowering overhead costs. For example, telemedicine allows physicians to shorten their practice hours and deliver some of their care from a home office. This lowers payroll costs and utility costs. A side benefit – recording video sessions creates a clear record of what information was conveyed during the consultation, reducing the risk of conflicting accounts that may arise in the future.

According to [a 2021 Kaspersky report](#), "Over 90 percent of global healthcare providers have implemented telehealth capabilities into their practice." Larger organizations should make a decision between building or buying a telehealth solution, while smaller providers should consider off-the-shelf products that are easy to implement.

The Best Telehealth Solutions Are:

Embedded:

Live video capabilities should be seamlessly embedded into existing apps or interfaces — without requiring a separate download or plugin — so that both doctors and patients can integrate the process into their daily workflow.

Compliant:

It is critically important to capture doctor-patient live-video interactions to not only maintain quality service, but also for compliance purposes and future reference.

Mobile:

Healthcare is no longer confined to the doctor's office. Patients want and need access to quality care on demand, and from wherever they need it. So your solution should be available to everyone, anywhere, on any device.

Secure:

Protection of data is a top priority. Healthcare providers must ensure that live video consultations and exchanges are transmitted and stored securely, protecting the privacy of all participating parties.

Scalable:

Whether live video is the primary channel for delivering care, or complementary to in-person visits, quality and reliability is critical. The challenge is to offer high-quality and interactive live video at scale, ensuring the technology powering its live video can support hundreds to thousands of users.

Reduce Fraud With 2 Factor Authentication (2FA)

The Challenge

Fraud is a serious problem that leads to security breaches. Healthcare organizations protect a lot of sensitive information. To safeguard against fraud, many healthcare organizations have set up various detection techniques – many of which are poorly implemented, create roadblocks for patients to easily access the information they need, and deliver poor patient experiences.

The best healthcare fraud-reduction programs should be multifaceted and constantly evolving. Alongside strong internal policies, education, and training, multifactor authentication is your best friend.

The Solution

Two-factor authentication (2FA) is a tool that nearly everyone has used at some point to access their personal information online. It usually works like this: You enter your phone number into a website, and they securely text you a code to enter into the website to prove your identity. The applications for healthcare providers are clear: 2FA can make it far easier to identify patients when they call to request PHI, like test results or copies of medical records.

Private patient portals are great for managing results and appointments. Implementing 2FA offers a quick, inexpensive, secure way to confirm identity for healthcare providers, while greatly improving the patient's experience.

And when it comes to security, 2FA is inherently strong at defending the weaknesses fraudsters exploit. 2FA is:

- **Tied to the user:** Because a 2FA solution relies on info linked to user accounts, it's much harder for attackers to reach all the "access points" they need to gain entry.
- **Harder to spoof:** Attackers may be able to register false accounts with bots, but getting a unique phone number for every attempt is a different story.
- **Distributed:** Unlike with other authentication challenges, 2FA solutions remove the login point from the authentication means, creating multiple "fences" for attackers to hop.
- **Easy to deploy:** While building a 2FA system from scratch is a deeply complex process, the availability of quality APIs ensures any business with authentication needs has fast, affordable access.

The Tech

2FA works by combining something a user knows (a password) and something that a user has (a phone or hardware token) to verify their identity. While it has become relatively easy for fraudsters to steal passwords, it is much more difficult to steal a password and hack a second factor.

When selecting and implementing 2FA for a growing global user base, you need to ask yourself several questions to strike the right balance between security and a seamless experience:

1. Is it a single standard that works across different global infrastructures?
2. Will it be considered an acceptable experience by users in different regions?
3. Does it automatically fail-over to another channel if the first attempt doesn't get through?
4. Does it unintentionally block out good users?

Phone Verification: The Ultimate 2FA Option

There is a continuum of 2FA options. And, ultimately, it's about striking the right balance between convenience and security. The ideal way to accomplish this on a global scale is through phone number verification.

- **6 billion people** across the globe can be reached via phone
- **1 in 3** checks their text notifications within one minute of receipt

Unlike other 2FA methods that may require special hardware or an authenticator app, a phone verification solution works with any phone number.

Phone numbers have emerged as the ultimate user identifier in healthcare not only because almost everyone on earth can be reached by phone, but also because people retain their numbers for very long periods of time — often 10 years or more.



CONCLUSION:

Choosing the Right Cloud Communications Vendor for Your Healthcare Organization

Moving your communications to the cloud can be daunting, but the right partner will help your practice become more secure, stay compliant, offer better experiences for patients, and better manage the revenue cycle.

Need help navigating the world of healthcare cloud communications?

Visit vonage.com today to see how Vonage can help your practice.

