



Reimagining Healthcare

Your Guide to the New World of Healthcare
Reimagined With Digital Communications

The New World of Healthcare Is Here

Digital, on-demand healthcare is now table stakes. By 2030, it will be a [\\$1.04 trillion global industry](#). Consumers take it as a given that they should have seamless, convenient, and personalized online experiences with every healthcare service they engage with, and they are increasingly demanding a higher standard of care.

However, healthcare providers across the globe face huge funding gaps, a short supply of staff, aging populations with a higher cost of care, and a rise in chronic diseases. Finding operational and cost efficiencies, along with supporting preventative care, are also top of mind for providers.

How can providers meet these challenges and still deliver patient-centered care?

This guide explores how healthcare providers are using digital communications to reimagine the field. You will learn how to create outstanding patient and practitioner experiences while improving operational efficiencies, lowering costs, and proactively engaging patients in their ongoing health.



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“The health industry is undergoing a redesign of the health ecosystem for the consumer, taking lessons from approaches that were fire-tested ... during the COVID-19 pandemic. Changes in consumer behavior — some in play even before the pandemic hit but certainly accelerated by it and likely here to stay — are fueling much of this redesign.”

— [PWC, 2021](#)

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The Digital Healthcare Revolution

In order to redesign your healthcare service into a fully optimized experience with digital communications, you first need to understand how the very nature of healthcare delivery is changing as the sector continues to digitally transform.

Shortage of Physicians

The U.S. could see a shortage of up to **139,000 physicians** by 2033.

On Mobile and On-Demand

Healthcare is on-demand, on mobile, and in apps or wearable devices, known generally as “telehealth” or “mHealth” when it only involves mobile devices.

- **83% of physicians** offered virtual services in 2021 compared with only 13% in 2019.
- At least **68% of patients** choose a provider based on the ability to book appointments online.
- Around **60%** of all web browsing is done on mobile
- The global mobile health market is expected to reach **\$250 billion by 2026**.
- About **one in five Americans** wear a fitness tracker.

Data Driven

Healthcare providers and practitioners are combining all the power of modern medicine with AI and big data to deliver smarter and more personalized care.

- **30% of healthcare costs** are associated with administrative tasks, many of which can be automated.
- Nearly **one in five physicians** are using augmented intelligence for practice efficiencies, and two in five plan to adopt it in the next year.
- The global AI-powered healthcare market is set to reach **\$95.65 billion** by 2028.

Advanced Care, Enabled by VR

Fast, mobile internet connections, cloud technology, and virtual reality are enabling healthcare delivery, collaboration, and training to happen anywhere in the world, in any setting. As they do, they're also improving the standard of care they provide.

- Surgeons who trained using virtual reality were 3x more likely to successfully complete a procedure and demonstrated a **300% improvement** in accuracy.
- VR visualizations can reduce post-surgical wound pain by **24%**.
- The global augmented reality and virtual reality healthcare market is expected to reach **\$9.5 billion** by 2028.

Rising Healthcare Demands

- In the U.S., **four in 10 adults** have two or more chronic diseases.
- This trend is **expected to increase** unless there are healthcare improvements.

Record-High Consumer Spending

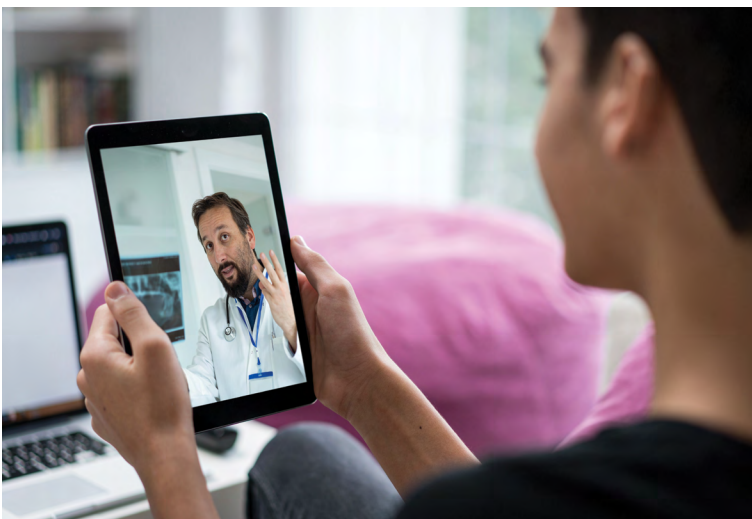
U.S. healthcare spending is expected to rise 5.8% annually and **reach \$12 trillion** by 2040.

While healthcare continues to face many pressures, many organizations and providers are already using digital technology and communications to create the optimized and innovative healthcare experiences that will soon become the norm.

Healthcare Reimagined With Digital Communications APIs

As technology has transformed the delivery of care, communication technology has begun playing a central role in meeting the needs of patients and practitioners alike – even as they evolve.

Today, the healthcare journey unfolds over time and across many scenarios, touchpoints, and communication channels. Patients manage appointments and results with a few taps on a device. Doctors and specialists from around the world collaborate remotely. And in many scenarios, in-person consultations are being replaced altogether with live video. The technology of choice used to power these customer interactions in healthcare, and across dozens of other industries, is digital communications APIs.



What Are Digital Communications APIs?

API stands for application programming interface. It's a standard way to make a defined set of software functionalities available for any business to use. Communications APIs make it easy for developers to add communication channels like voice, video, and messaging to any application or service.

Healthcare companies – from startups to established providers – are moving toward an API-based communications strategy that enables them to customize and personalize experiences at scale.

Combined with vast amounts of patient data, interactions can be programmed using communications APIs to deliver the right information to the right person at precisely the right moment.

The API Building Blocks of Digital Communications in Healthcare



Voice

High-quality, scalable, and flexible voice experiences with user context and data.



Video

Live video chat with face-to-face human interaction.



Messaging

MMS, SMS, social chat apps like WhatsApp, Facebook Messenger, or Viber.



Authentication

Two-factor authentication used to validate an account and prevent fraud.

A Quick Technical Guide to the New Standards in Healthcare Communications

Here are the technical fundamentals you need to consider when reimagining your healthcare experience with digital communications – across all channels.



AI driven

Technologies such as speech recognition, sentiment analysis, and bots can be used to connect patients to the right service, right away.



Embedded

Adding communications directly within the environment of a native web or mobile application.



Programmable

Interactions can be automated and customized to trigger in response to actions and events, with or without human involvement.



Interactive

Two-way engagement in real time is intrinsic to interactions in healthcare and should be considered across all channels including voice, video, and messaging.

What Digital Communications APIs Can Do for Your Healthcare Organization

They offer an evidence-based approach to achieving outstanding results with voice, video, messaging, and authentication.

How your healthcare organization uses digital communications APIs is limited only by your imagination. Whether you want to enhance an existing service or build an entirely new one, chances are there are dozens of touchpoints across your healthcare journey waiting to be reimaged.

Enhance the Patient Experience

Offer a More Affordable and Accessible Healthcare Service

Reduce healthcare costs for your patients by offering video or voice-enabled healthcare services.

Telehealth appointments for non-emergency reasons typically **cost around \$79**, compared to \$146 for an in-person visit.

Low-income Americans are more likely to use telehealth services.

How?  

Expand Patient Access to Care –Anywhere, Anytime

Save patients travel time and money by offering on-demand healthcare, such as remote consultations available with a few taps of a device at any time, no matter the location.

A study found that telehealth can be used to **expand access** to primary care in rural areas.

Telehealth has been shown to increase visit completion rates by 20% for rural residents.

If 30%-40% of in-person specialist visits in the U.S. were **replaced by telehealth consults**, tens of billions of dollars would be saved annually.

How?  

Improve Patient Satisfaction and Loyalty

Offering patients a secure, on-demand, and seamless experience on their preferred channels drives high patient satisfaction that keeps them coming back.

Analysts expect telehealth to stabilize at **38 times higher usage** than it was before the pandemic.

32% of people had a virtual consultation with a medical provider in the past year.

75% of physicians say telehealth has allowed them to deliver high-quality care.

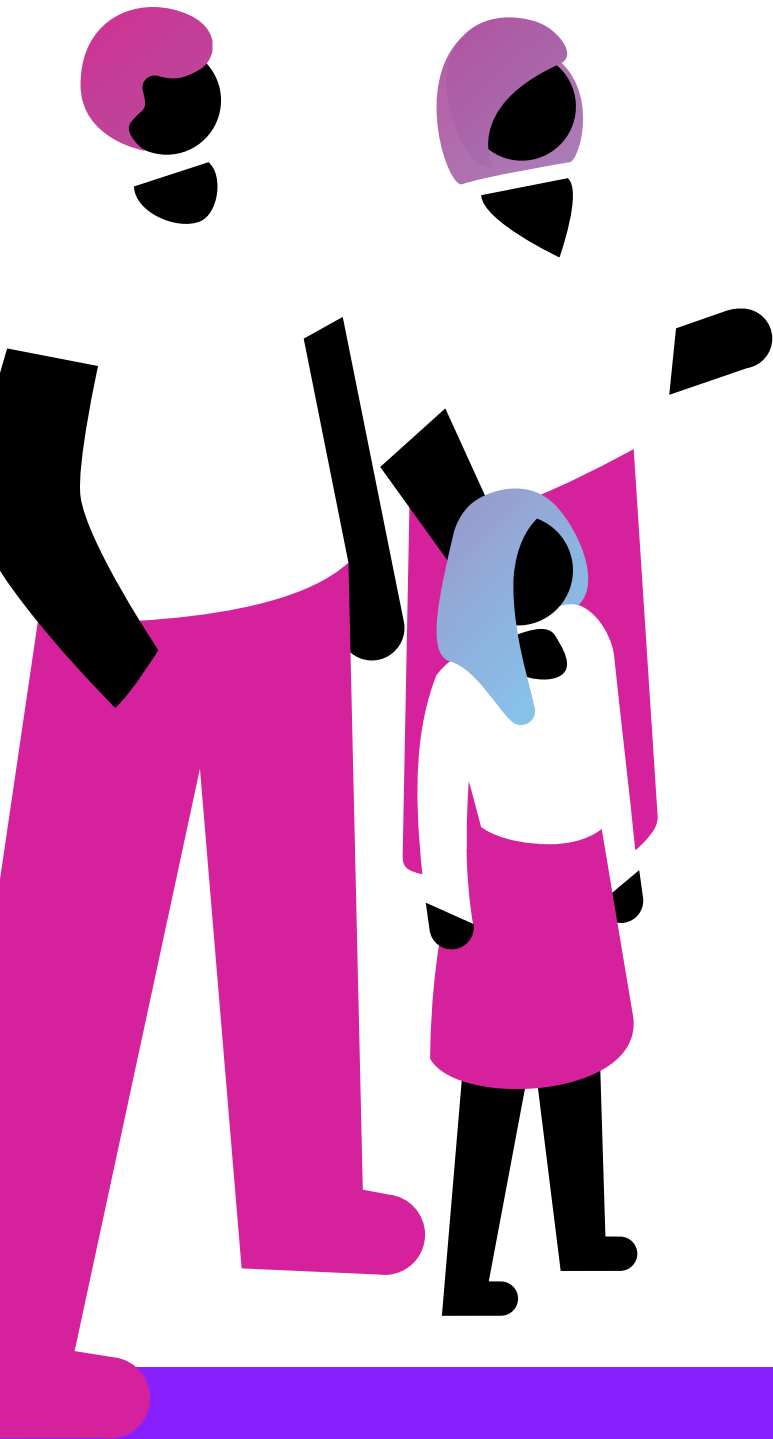
Eight in 10 adults said that their primary health issue was resolved with a telehealth visit.

More than **nine in 10 adults** were satisfied with the quality of their telehealth visit.

Of the patients that recently received telehealth care, **76%** would prefer to receive care virtually in the future.

How?    





Reduce Wait Times

When you connect patients and physicians on their preferred devices for noncritical visits, you can reduce wait times in the clinic and improve patient satisfaction.

On average, patients wait for **18 minutes and 13 seconds** to see their healthcare provider, and **85% of physicians** say that telehealth has increased the timeliness of their care.

How?   

Help Patients Stay Healthy

Healthcare doesn't end when a patient leaves a facility – encourage better patient compliance and prevention by delivering discharge instructions, health tips, and reminders to their favorite channels.

A study published in the Journal of the American Medical Association showed that a comprehensive telehealth approach **significantly benefits patients** with persistently poorly controlled diabetes.

Research indicates that patients with chronic gastrointestinal conditions are more likely to **take their prescribed medication** following telehealth appointments than they are after in-person appointments.

A study found that telehealth generally provided care **as good as in-person care** for several health conditions – and sometimes it was even better.

In a survey, two in 10 adults said they would have **delayed care or not sought care** at all if telehealth were not available.

Patients who had virtual visits had **19% fewer ER or urgent care visits** than those who didn't have any virtual visits.

How? 

Drive Operational Efficiencies

Reduce Appointment No Shows

On-demand patient scheduling with automated appointment reminders can help reduce no-shows and fill last-minute appointment cancellations.

About 48% of healthcare patients miss or skip their appointments.

Missed appointments cost individual physicians an average of **\$200 per unused time slot**.

Patient no-shows or missed healthcare appointments cost the U.S. up to **\$50 billion annually**.

In one study, the no-show rate for telehealth visits was **7.5%**, compared with a no-show rate of 36.1% for scheduled in-office visits.

SMS appointment reminders have been found to **increase appointment attendance** and decrease the rate of no-shows.

Among patients surveyed during the COVID-19 pandemic, **98%** said they liked receiving text messages related to their healthcare.

How? 

More Efficient Medical Collaboration

Enable fast and effective collaboration across multidisciplinary teams with digital communications tools such as interactive voice and video with screen sharing and annotation.

How? 

Reduce Readmissions and Achieve Patient Satisfaction With Remote Monitoring

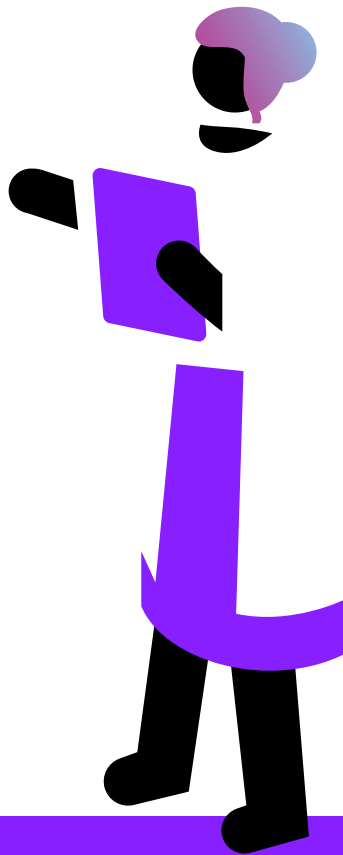
Take the pressure off your hospital or primary care clinic by using communications APIs to support post-operative checkups and monitoring at home.

A university medical center has reduced the risk of hospital readmissions by **76%** and held patient satisfaction scores over 90% by equipping patients with tablets and remote patient monitoring devices.

When asked about using remote monitoring to improve care, **60% of primary care physicians** expressed enthusiasm.

A survey showed that **43% of clinicians** think remote patient monitoring will be on par with in-person patient monitoring in five years.

How? 





Retain and Grow Your Patient Base

With remote consultations, you aren't limited to customers in your local area or regular practice hours. Add an extra revenue stream to your healthcare business by increasing patient volume.

52 million Americans are more than 30 miles away from their closest hospital.

In an AMA survey, **58% of physicians** said that telehealth allows them to see more patients, and 59% said it provides a new stream of revenue.

How?  

Optimize Customer Service With Contextual Communications

Empower your practitioners and staff to provide excellent customer service by giving them the right information and context about customers at exactly the right moment.

More than **60% of customers** say they now have higher customer service standards.

Over **70% of customers** say they expect conversational experiences. They also expect personalized service based on conversations they've already had.

88% of customers say the experience a company provides is as important as its products or services.

How?  

Secure Your Service

Increase Security With Authentication

Improve security and patient trust in your digital healthcare service by offering simple two-step authentication via SMS or voice to validate an account and cross-account usage.

Confidence in the security of patient data increases use of healthcare apps by 62%.

How? ****

Protect Your Customers and Business from Fraud

With simple phone number verification at sign-up, you can stop fraud before it infiltrates your digital healthcare service, ensuring you only serve legitimate patients.

At least **42 million Americans** experienced identity theft in 2021, with losses totaling \$52 billion that year.

Researchers observed a 90% increase in account takeovers from 2020 to 2021.

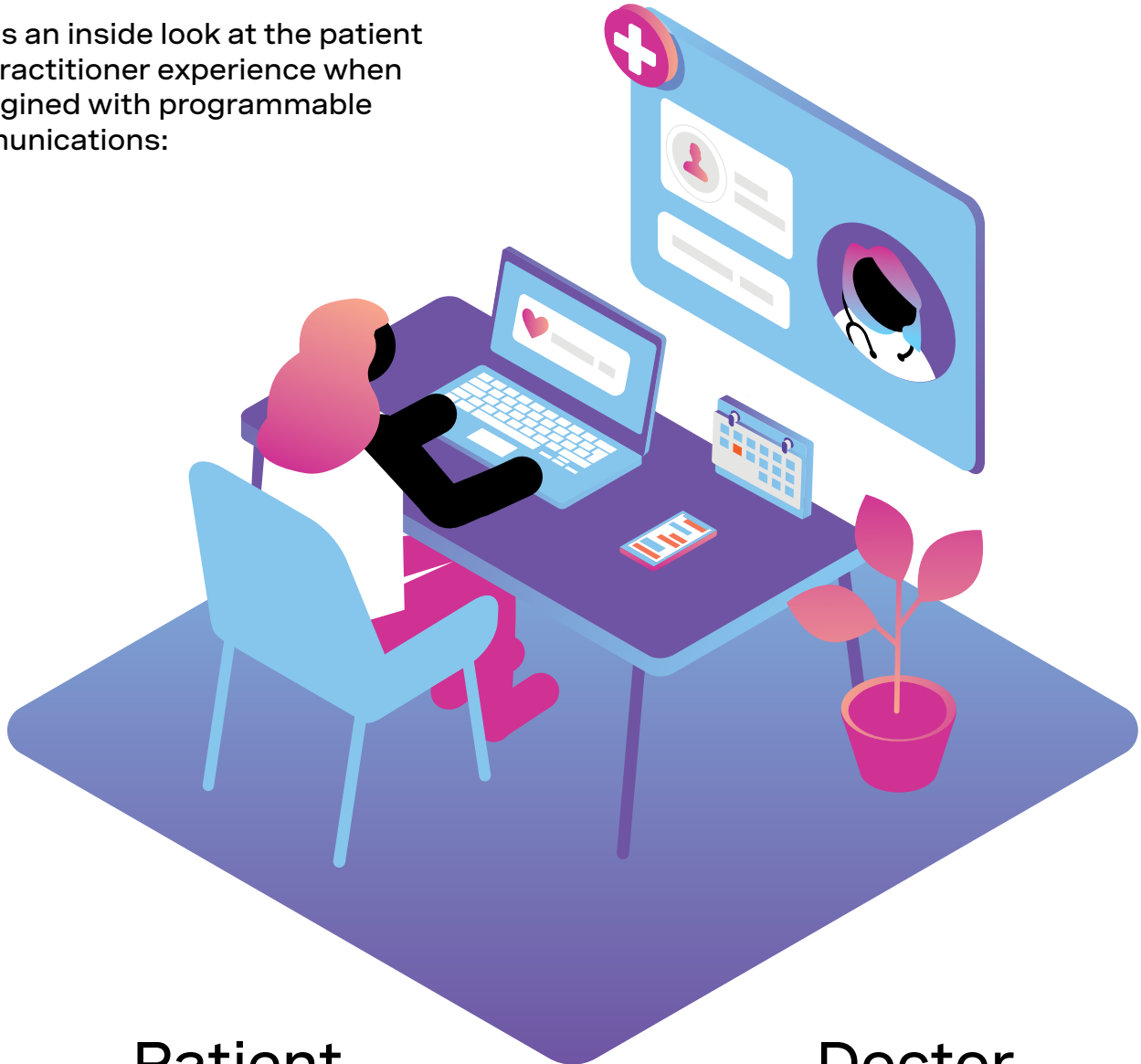
How? ****

Programmable Communications Put Into Practice

A Perfect Day in Healthcare

By now, you've learned how adding digital communications to the healthcare journey can empower practitioners to deliver better care, increase patient engagement, and streamline operations while lowering the costs and barriers to care. But what can a day in the life of patients and doctors actually look like when fully optimized with programmable communications?

Here is an inside look at the patient and practitioner experience when reimagined with programmable communications:



Patient

Doctor

Francine feels unwell. She can't afford to take time off work to see a doctor. She remembers her primary care provider has an app that lets her speak to a doctor from any device, at home or work.

Dr. Diane is a busy practitioner. Her clinic has a new telehealth app that lets patients book live video consultations. She can now help more patients than ever before.

Virtual Consultations



8:15 am

Identity verified

Francine downloads the app before reaching her office and registers an account. The last step is to verify her identity, and she enters a secure one-time code sent to her phone via SMS.



8:20 am

Symptoms analyzed

A voicebot asks Francine to describe her symptoms. Using speech recognition, the bot determines if her condition is best addressed by a doctor via live video, a phone call, or by exchanging messages with a clinician.



8:30 am

Appointment scheduled

Francine needs to see a doctor. She schedules a live video appointment for that evening. A message appears in the app with the doctor's details, and she is delighted to recognize the doctor from a previous visit.



6:01 pm

Confirmation received

Dr. Diane and the practice's receptionist receive Francine's confirmation. This helps them plan around potential no-shows and last-minute cancellations.



6:00 pm

Appointment confirmed

Francine receives an SMS reminder and confirms she will be attending by replying "YES."



8:30 am

Appointment received

Dr. Diane sees an alert for Francine's appointment. She reads her recent medical history to prepare for the consultation.



7:00 pm

Video consultation joined

Francine joins the appointment using her laptop in the comfort of her own bedroom.



7:00 pm

Consultation securely recorded

The video call is automatically recorded for compliance purposes. It also means Dr. Diane can devote her attention to Francine without having to take notes.



7:20 pm

Follow-up appointment offered

Dr. Diane pinpoints the problem, explains a treatment plan, and prescribes a course of medication. She triggers a message in the chat to schedule a follow-up appointment.



Ongoing

Health content delivered

The provider sends regular preventative health tips and reminders to Francine's preferred chat app, Facebook Messenger. This helps her stay engaged in her recovery and ongoing health.



7:25 pm

Follow-up appointment scheduled

Francine can schedule her follow-up appointment with a reply in the chat or a call. She taps to speak to the receptionist and sets it for two weeks away.

Explore more healthcare scenarios reimagined with communications APIs, including remote collaboration and group therapy, in our guide:

Digital Communications in Healthcare: A Perfect Day

Top Communication Challenges in Healthcare and How to Overcome Them With Vonage APIs



Security and Compliance

From HIPAA to the HITECH Act, the healthcare industry faces strict security requirements when it comes to patient data.

For any exchange that involves personally identifiable information, like a patient's details, it's crucial to choose a communications platform designed to help you build secure and compliant applications.

- The Vonage Video API helps you build HIPAA-compliant video experiences that are fully encrypted with digital archiving of patient and practitioner interactions.
- Authentication APIs like Vonage Verify maintain the integrity of your digital healthcare service while building trust with patients.



Legacy Systems

Legacy technologies are still widespread across healthcare systems.

Any investment in new communication technology must be interoperable with existing infrastructure.

- Whether you're building for web, mobile, or desktop, the Vonage APIs are interoperable with existing systems and can be integrated fast and seamlessly.



Cost

With already-high costs of healthcare delivery, the added expense of new communications technology can often deter projects from getting off the ground.

- Using API-based digital communications like Vonage Communications Platform gives you a flexible cost structure, so you only ever pay for what you use.





Reimagine Your Own Healthcare Experience

Get Started with Vonage APIs

Programmable communications APIs can help you elevate the healthcare experience, reach more patients, and improve their level of care. If you're ready to reimagine your healthcare service, Vonage can help.

With our flexible **communications APIs**, global platform, and expert support, it's now easier than ever to reimagine the healthcare experience – and your organization – with digital communications.

From growing startups to established organizations, healthcare companies such as **Doxy.me**, **Babylon Health**, **ResolutionMD**, **Intouch Health**, and **Maven** rely on Vonage to power seamless, secure, and innovative interactions between patients, practitioners, and service providers.

Learn more. Contact us at:
+1-844-365-9460
vonage.com/contact-apis

Building Blocks

Here are the communication building blocks you can use to make every interaction count:



Voice - Build powerful voice products and engaging in-app voice experiences with the easy-to-use Vonage Voice API and Client SDK.



Video - Integrate video directly into your website or mobile applications with the Vonage Video API.



Verify - Verify any phone, anywhere, with the Vonage Verify API. Let us do the heavy lifting. Pay only for the results.



Messaging - Integrate multichannel messaging, including SMS, MMS, and popular social chat apps, into your applications with the Vonage Messages API. Build engaging in-app messaging experiences as well with the Vonage Client SDK.



AI Studio - Empowering developers and non-developers alike, AI Studio is a low-code conversation designer tool that creates and deploys customer engagement experiences across, Voice, SMS, WhatsApp and HTTP.

Want to find out how you can start building? Speak with an expert about implementation and best practices in healthcare.

GET STARTED