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API Platform

A perfect day

Digital Communications in Healthcare

An inside look at the patient and practitioner experience when optimized with programmable communications

One day. One doctor. Several patients.

Dozens of complex interactions made simple with programmable communications.

From improved operational efficiencies to better patient outcomes and more affordable care, digital transformation in the healthcare industry has enhanced the experience for everyone involved—patients, medical professionals, and service providers.

The typical healthcare journey no longer begins and ends in the waiting room. Rather, it unfolds over time, across many scenarios, touchpoints, and communication channels—each interaction designed to provide a unique experience to each participant, delivering the right information to the right person at precisely the right moment. The sum of these interactions comprises the modern healthcare experience, enabled by programmable communications.

But what can a day in the life of patients and doctors actually look like when optimized with programmable communications? Follow the healthcare scenarios in this infographic to see how experiences are being reimagined across the healthcare industry.

Voice   **Authentication**   **Video**   **Messaging**

Virtual Consultations

Patient

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.

Doctor

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.

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 by 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 her from a previous visit.

6:01 pm

Confirmation received

Dr. Diane and the practice receptionist receive Francine's confirmation. This helps them plan around potential no-shows and last-minute cancellations.
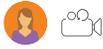
6:00 pm

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 decides to join 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 favorite 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' time.

Virtual Consultations

Remote Collaboration

Patient

Joe has a complicated knee injury. Rather than travel hours to the nearest specialist, he agrees to an in-person consultation with his doctor and a specialist surgeon by live video.

Doctor + Specialist

Dr. Diane has an appointment to review a patient's X-rays and discuss surgery. Instead of referring him to a specialist, she has organized to collaborate with one over live video during the consultation.

9:00 am

Reminder sent

Dr. Diane reminds the surgeon about their joint consultation. She sends a message with the details for him to join by live video.

9:15 am

Consultation confirmed

The surgeon confirms he will video call from his clinic. He has already studied the patient's X-rays. The patient will need surgery followed by a rehabilitation program.

9:30 am

Physiotherapist invited

The surgeon invites a physiotherapist to the consultation to explain the rehabilitation process. She has the option to join by voice or video call.

3:11 pm

Scans remotely annotated

The surgeon brings up the patient's X-rays on the shared screen so the patient can see. He annotates them, circling the problem areas and marking how he proposes to operate.

3:10 pm

Identity verified & video recorded

The surgeon verifies his identity with a secure one-time SMS code. He appears on a robotic tablet screen mounted on the doctor's desk which he controls remotely. This enables him to engage with the patient and doctor as if he were in the room. The video is automatically recorded.

3:00 pm

Video call initiated

The patient checks in for his consultation and avoids the time and expense of traveling to the specialist. After a brief chat, the doctor begins the video call with the surgeon.

3:30 pm

Physiotherapist added

The surgeon then adds his physiotherapist who explains the post-op rehabilitation process. She also verifies her identity with a secure one-time code sent by SMS. She is out on home visits today so joins by voice from her mobile phone.

3:45 pm

Surgery confirmed

After much discussion, the patient agrees that surgery is the best option. When the consultation ends, a secure link to the recording is available.

3:50 pm

Recording studied

The specialist shares the secure link to the recording amongst his team of surgeons, who begin to study the results and prepare for the operation.

4:00 pm

Surgery scheduled

Following the appointment, Joe receives an SMS from the provider. The message contains several options for a surgery date to which he can reply by SMS or phone call.

## Remote Collaboration

Group Therapy

Patient

Simon undergoes therapy to treat depression, but sometimes life gets in the way. Thankfully, his primary care provider has an app that lets him join group therapy from any device. It helps him stick to regular treatment, whether at home or on-the-go.

Doctor

Dr. Diane treats several patients for depression. She runs a weekly group therapy session via her practice's telehealth service. Now patients can access treatment using video or a voice call, which keeps them engaged and reduces dropouts.
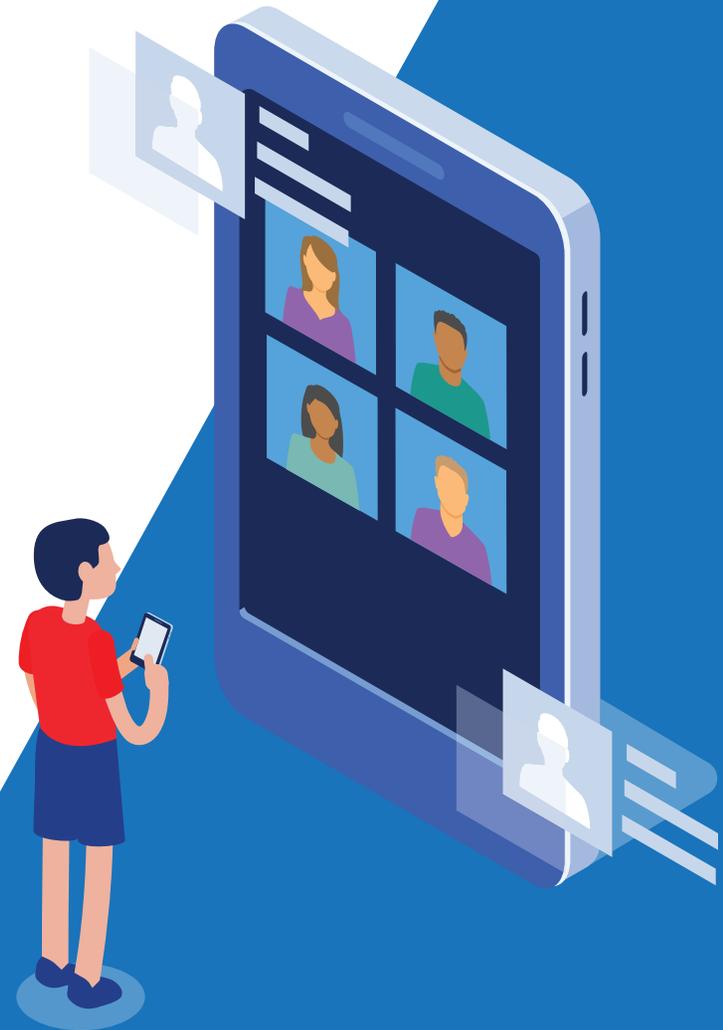
9:00 am
Reminder message missed

An SMS is sent to Simon to alert him that his weekly group therapy session is this afternoon. But he receives dozens of messages every day so doesn't pay attention to it.

9:30 am
Voice alert received

Simon's phone rings. It gets his attention. He answers and it's an automated voice alert with a reminder message. He confirms he is attending by pressing 1.

9:45 am
Group session confirmed

Dr. Diane receives a list of confirmed patients. It helps her prepare for the session and prevent drop-outs. She is expecting a full group.

1:00 pm
Group call joined

Simon is out and about today, so he decides to join from the park. He doesn't feel like speaking face-to-face and his connection is weak, so opts to call in instead.

1:00 pm
Group session initiated

Dr. Diane starts the video session from her office computer and begins the discussion with all five of her patients.

12:58 pm
Identity verified

It's time for the session. Simon securely enters the app by verifying his identity with a one-time code sent by SMS.

1:50 pm
Follow-up material delivered

After the session, Dr. Diane prepares exercises for the week ahead and sends these to her patients with one tap.

1:51 pm
Follow-up material received

Simon receives a message through the app with this week's exercises. There is an option to start a one-on-one chat with Dr. Diane in case the patients want to discuss concerns in private.

2:10 pm
Online chat triggered

Simon has some questions and begins a chat with Dr. Diane through the app. There is also an option to call her directly, but the online chat resolves his concerns.

Ongoing
Mental health content distributed

The provider sends regular reading material and mental health tips to the patients via their preferred chat or social app, or WhatsApp.

2:10 pm
Online chat resolved

A notification alerts Dr. Diane that a patient wants to talk. She sees it's Simon and answers his questions through the online chat.

Group Therapy

Reimagine Your Own Healthcare Experience

Start building with Nexmo programmable communications APIs

With Nexmo APIs, our global platform, and expert support, it's now easier than ever to optimize the healthcare experience—and your practice—with digital communications.

Adding programmable communications to your healthcare service can empower practitioners to deliver better care, increase patient engagement, streamline operations, and improve patient outcomes, all while lowering the costs and barriers to care.

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

How will you use programmable communications to create the perfect day in healthcare?

Building Blocks

Here are just some of the communication building blocks featured in the healthcare scenarios you've just seen:

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

Authentication - Verify any phone, anywhere with the Nexmo Verify API. Let us do the heavy lifting, and pay only for the results.

Video - Integrate video directly into your website or mobile applications with the Nexmo live video API, OpenTok.

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

Speak to an expert about implementation and best practices in healthcare.

GET STARTED