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SOLUTION BRIEF

Essential Elements of a Successful Telehealth Implementation

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Telehealth: A Modern Healthcare Evolution

The World Health Organization anticipates a shortage of 18 million healthcare professionals by 2030. To address this, 71% of healthcare leaders are expanding their telehealth programs to transform care delivery. Telehealth has become essential to global healthcare, offering cost-effective, geographic-independent services, optimizing resources, and enhancing patient engagement.

Patients experience benefits such as time savings, reduced costs, and better access to specialists, particularly in underserved areas. Now recognized as an alternative and a vital component of healthcare systems worldwide, telehealth helps to close care delivery gaps and redefine access to medical services.

Telehealth applications range from post-operative care to mental health consultations, marking a shift towards personalized, accessible, and patient-centered healthcare. By 2024, 62% of Americans are expected to use telemedicine. As telehealth evolves and integrates further into mainstream care, its impact on improving quality, efficiency, and accessibility is significant.

This guide will address the key challenges and considerations in implementing telehealth solutions.

Common challenges with telehealth technology

The main challenges facing telehealth technology today revolve around the experience for patients and providers, security and compliance, and the development and integration of telehealth solutions.

Patient and Provider Experience

Reliability

Telehealth systems require reliable and secure communication channels. **Frequent freezes or dropped calls** disrupt consultations, leading to incomplete advice and potentially impacting the quality of care. This can result from poor internet connectivity, inadequate infrastructure, or software issues.

Quality

Video quality is essential during telehealth sessions for providers to be able to accurately diagnose and treat patients. **Grainy, low-quality video** is a bad experience and forces providers to rely on audio alone when caring for patients.

UI Friendliness

If the telehealth experience is not user-friendly, healthcare providers and patients may face challenges. Systems should be designed with all users in mind, including those with limited technical proficiency.

Accessibility

For telehealth to be successful, patients from all backgrounds should be able to access services easily. If telehealth services don't work on **older devices**, don't allow **dial-in via land lines**, or can't support **live translation**, they won't work for everyone.

Security and Compliance

Security and Privacy

The platforms used must ensure the confidentiality and integrity of patient data. This involves end-to-end encryption, secure data storage, and other cybersecurity measures to protect against unauthorized access and data breaches.

Regulatory Compliance

In the United States, telehealth services must comply with HIPAA to protect patient privacy and security. Various state-specific regulations govern the use of telehealth. Navigating these regulations can be complex, and non-compliance can result in significant fines and damage to reputation.

Development and Integration

Integration

Telehealth platforms must integrate seamlessly with healthcare systems, such as electronic health records (EHRs). This ensures that patient information is updated and available across different platforms, aiding in comprehensive care.

Platform Support

When telehealth solutions only work for certain devices or browser, they can't support patient needs. A patient using a browser on an older Android device should be able to easily connect to a doctor on an iPad without compatibility issues.

Customization

When telehealth was first introduced, many providers attempted to use out the box SaaS video calling solutions (like Zoom or WebEx). These one-size-fits-all platforms weren't designed for healthcare and lack important features required features.

These common challenges highlight the need for comprehensive strategies to ensure smooth telehealth implementation.

Essential elements of a successful telehealth implementation

How can organizations implement successful telehealth solutions that address the challenges and provide a scalable and high-quality experience for both patients and providers? Here is the key functionality necessary for a telehealth service to succeed.

High-quality, video and audio calling

Quality means more than just the resolution of a video. A good telehealth solution must consider the entire experience to ensure the best quality given the conditions, while optimizing for a smooth, frictionless call connection. High-quality audio including AI noise suppression and echo cancellation is essential to clarify patient/clinician dialogue and prevent misunderstandings.

Real-time captioning and translation

Live speech-to-text captioning and translation improve accessibility for patients and clinicians. Translation helps to break down language barriers and minimize communication misunderstandings.

PSTN integration for dial-in calling

To provide a solution that works for all patients, it's essential to provide an option to dial in to an appointment via phone. This requires a telehealth solutions provider to support the use of an external PSTN provider, offering dial-in phone numbers and the ability to connect via phone.

SOAP notes

Compliant transcription, which correctly documents the patient's condition and creates a patient chart, is crucial in diagnosing and treating patients. Providing automated and compliant patient notes saves providers countless hours of paperwork and documentation.

Reliable network

Telehealth is often most needed in rural or remote areas with poor network conditions and limited access to in-person care. Ensure that your telehealth video and voice solution is optimized for smooth reliable calls automatically, even with low bandwidth conditions. This will prioritize the prevention of freezes or dropped calls that disrupt appointments.

Chat/messaging functionality

Having a sophisticated chat function keeps patients and providers in-sync both during and after appointments and consultations.

Device and browser support

It's important to ensure that your telehealth solution is compatible with the widest range of platforms, browsers, and devices to ensure you can reach the widest range of patients.

Security and Compliance

Make sure that any supplier is ISO and SOC 2 certified and meets compliance standards for regional privacy laws and industry regulations, including GDPR, CCPA, and HIPAA.

Analytics

The ability to track quality, performance, and streaming usage in real-time helps you to fix any issues quickly before they impact patients. Detailed Quality of Experience (QoE) and Quality of Service (QoS) analytics help you to optimize every aspect of your telehealth service to keep things running smoothly.

Agora's Telehealth Solutions

So, where can you find all the elements necessary for a successful telehealth implementation? Agora's Telehealth solutions offer all the functionality mentioned above, helping providers close care gaps and humanize virtual healthcare.

Agora enables you to build a better patient experience with easy-to-embed HIPAA-compliant video and audio calls, medical transcription, enterprise-grade security, and the most reliable global network for real-time communication. Whether you are building a new application or want to embed telehealth functionality in your existing application, Agora's software development kits (SDKs) and no-code tools make it easy. Agora's solutions enable a wide range of medical use cases beyond standard telehealth, including remote patient monitoring, virtual mental healthcare, interactive medical training, and more.

Patient-First Experiences

- **Agora's global network (SD-RTN™)** comprises data centers dedicated to sub-second latency and high availability of real-time video and audio anywhere globally. Agora offers users an unparalleled video communication experience characterized by clear picture quality and smooth connections.
- Build a truly immersive and engaging patient experience with our **video and voice**, SDKs (Software Development Kits) available for every major development platform: Web, Android, iOS/MacOS, Windows, ReactJS, React Native, Flutter, Electron Unity, and Unreal Engine.
- **AI Noise Suppression** from Agora means that conversations are clear and easy to understand ensuring that everyone is heard and can be heard. Active speaker detection ensures that consultations run smoothly.
- Agora's highly accurate and secure **speech-to-text solution** makes it easy to keep secure records of virtual appointments and patient questions
- **Agora Analytics** tracks quality, performance, and streaming usage. The intuitive dashboard lets customers see trends quickly, monitor issues, and solve problems in real-time.
- Agora's **PSTN Gateway** allows you to connect your PSTN provider, allowing patients and providers to connect audio via traditional phone calls in Agora-powered calls.
- Agora works closely with browser developers to resolve compatibility issues quickly, **regularly updating our SDKs to accommodate new browser versions and WebRTC features**—ensuring a smooth experience across web browsers.

Collaboration Solutions

- Enable **live and interactive virtual training and events** from small groups to millions of viewers.
- Add **branded, digital whiteboards** to your apps for live collaboration and learning.
- Improve efficiency by **uploading and sharing** relevant materials, including interactive media embedded in PowerPoint. Discuss, edit, and annotate materials in real-time.
- Record sessions for later playback and distribution with options for **cloud or on-premises storage**.
- Support for **AR and VR systems** to integrate communication and collaboration into immersive virtual training.

Security & Compliance

- Agora offers **end-to-end encryption** to ensure data privacy and security.
- Agora is **HIPAA compliant** and meets compliance standards for regional privacy laws and industry regulations, including GDPR.
- Agora's robust security is **ISO and SOC 2 certified**.
- Agora implements **geography-based routing**, allowing app developers and security teams to choose based on their use case (for example, USA only or EU only). This allows Agora's customers to have their end-user's media routed and processed exclusively by servers within the specified regions.

ISO 27001: 2013 · ISO 27017: 2015 · ISO 27018: 2019 · ISO 27701: 2019 · AICPA SOC · HIPAA · GDPR · CCPA

Agora's Telehealth solutions help healthcare providers build and scale telehealth experiences and virtual collaboration anywhere.

Want to learn more? Check out our Telehealth Solutions Page or contact us here:

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