

Better Care, Better Experience:

# Healthcare Innovators Rely on PubNub



PubNub



Every industry is looking to technology to change how they work and interact, and healthcare is no exception. Especially with the recent growth of telemedicine as a viable and preferred service, realtime connectivity and automation hold the promise of faster care for better outcomes at less cost for providers. But regulations, privacy concerns, and high costs can slow innovation, unless you're working with technology that overcomes these realities.

Healthcare innovators are working with PubNub so they can focus on providing efficient care and an engaging experience to patients, while trusting PubNub to make sure the infrastructure is reliable and scalable for any number of users. The resulting solutions deliver added convenience, improved productivity, enhanced coordination, and better communication through realtime HIPAA-compliant chat, notifications, scheduling, information transfer, and more.

But it's not just startups doing the innovating. Large healthcare systems, government organizations, and others are changing the healthcare experience. **Henry Ford Health System** orchestrates better patient transport. **ZOLL** connects first responders with dispatchers and hospitals. **Patient Pass** enables fast, easy, and secure patient-doctor communications. **MaNaDr** connects patients with their doctors in realtime. And they're all doing it with PubNub. Here's how.

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01

# A Cure for Healthcare's Unique Challenges

## HEALTHCARE KEY CHALLENGES

### Efficient Delivery of Care

» **Improving Operational Efficiency**

Delivering great service at the lowest possible cost.

» **Better Care Coordination**

Ensuring safe and efficient patient logistics across providers and facilities.

### Patient Satisfaction

» **Enhancing the Patient Experience**

Keeping patients safe, satisfied, and comfortable.

» **Delivering High-Quality Care**

Increasing staff productivity, effectiveness, and speed.

### Compliance

» **Ensuring Compliance**

Maintaining HIPAA compliance along with privacy, security, data retention and auditability.

Healthcare providers are always looking to increase patient convenience, from reducing wait times to easing communication. But as healthcare costs continue to rise, patient retention has also become a concern. Providers must now do more to enhance how they communicate, coordinate, and engage with patients so they not only have a good experience, they also choose to come back. And, while patient care, communication, and coordination present opportunities, every interaction must be in compliance with HIPAA and other industry regulations.

But simply applying technology to a healthcare challenge is no longer adequate, since consumers have high expectations driven by the fast, easy-to-use, and highly reliable experiences offered by so many consumer-facing applications. Building an engaging solution and having the platform to support it requires a lot of resources to ensure reliability and scalability, but each resource applied to the platform is removed from helping to build the core solution. However, it's not a choice; developers must do both if they want their solution to succeed.

Today's most innovative organizations, some of which you'll read about below, rely on PubNub's feature-rich, reliable, scalable, and HIPAA-compliant infrastructure. PubNub takes care of the platform so developers can focus on time-to-market, usability, and differentiation while giving patients an engaging and satisfying experience, all with cost-saving productivity and efficiency improvements for providers.

02

# PubNub Enables Efficient Delivery of Care

As healthcare costs continue to rise, streamlining operations, increasing efficiency, and improving productivity is critical to keeping facilities running smoothly and budgets in check. But it can't be more efficient if it diminishes the patient experience. PubNub enables both by providing the platform to streamline operations, logistics, and coordination so patients can easily access the care they need.

## PubNub Delivers

- Realtime messaging and alerts for instant communication when speed matters.
- 99.999% uptime for confidence to work when lives are on the line.
- Realtime location data to ensure patients get to the care they need.

# Coordinated Care

## CUSTOMER CHALLENGES

- Improve coordination of patient transportation
- Keep transporters and dispatchers in constant contact
- Provide realtime visibility to patient location

## PUBNUB VALUE

- Always-on reliability with 99.999% uptime
- Instant chat and notifications keep everyone connected
- Realtime location data gets patients to and from the right points

**Henry Ford Health System** wanted to improve coordination between dispatchers and transporters as patients were moved across campuses. Wrong turns and clumsy handoffs could impact patient comfort. They wanted a mobile solution to keep everyone connected, but worried about reliability, uptime, and ease-of-use for their busy staff. So **Henry Ford** focused on improving coordination and used PubNub Chat to keep everyone in constant contact. PubNub's realtime location data also makes sure patients are on the right path, while PubNub's reliability ensures patients will get to the care they need.

# Streamlined Logistics

## CUSTOMER CHALLENGES

- Reduce missed appointments and resulting costs
- Improve transportation planning, management, and communication
- Improve reliability with realtime location visibility

## PUBNUB VALUE

- Connects multiple services to improve and automate logistics coordination
- Instant chat and notifications keep everyone connected
- Realtime location data gets patients to and from the right points

**One Call** wanted to reduce the number of medical appointments missed, and the related penalty fees, due to transportation coordination issues between patients, dispatchers, and drivers. So **One Call** built a mobile app to automate the process using PubNub for geolocation and realtime alerts. When things go off track, dispatchers use PubNub Chat to bring it back together. The app also integrates PubNub with Lyft, and with Amazon Connect and Amazon Polly to automate phone calls and SMS alerts. With PubNub as the foundation, **One Call** was able to increase schedule adherence by 10% and reduce average trip cost by 40%. As usage explodes from 1,500 rides per day to an eventual 15,000, **One Call** is confident PubNub won't let them down.



# Accelerated Response

## CUSTOMER CHALLENGES

- Improve and accelerate first responder communications
- Give patients faster access to critical care
- Provide realtime updates while maintaining HIPAA compliance

## PUBNUB VALUE

- Low-latency communications to keep everyone aware of patient status
- Reliable connections as responders pass information to hospitals
- Secure and compliant communication

**ZOLL** needed a mobile app to connect EMS dispatchers, crew, and emergency room staff in realtime to ensure patients quickly received the care they needed. But they had to get a feature-rich product to market quickly, so called on PubNub to provide the speed, reliability, and HIPAA compliance to make it happen. With lives literally on the line, PubNub's low-latency messaging can alert any number of users in less than 100ms, which increases efficiency and speeds response times for first responders.

03

# PubNub Enhances Patient Satisfaction

Secure messaging between doctors and patients is critical when care is being discussed, but even when patients need to schedule appointments, coordinate payments and insurance, or take care of non-medical issues, those same regulatory and privacy challenges apply. But PubNub brings security and compliance so developers can focus on building engaging apps.

## PubNub Delivers

- Full-featured chat, messaging and alerts for patient-provider convenience.
- Over 75 SDKs to simplify integrations and create more robust solutions.
- Reliability and scalability at a fraction of the cost of building in-house.

# Faster Convenience

## CUSTOMER CHALLENGES

- Modernize how patients and medical offices communicate and coordinate
- Allow easy communication while maintaining HIPAA compliance
- Quickly launch a great product with a complete feature set

## PUBNUB VALUE

- Reliable, scalable, and easy-to-use chat infrastructure
- Secure and HIPAA-compliant communication
- Full-featured messaging, alerts, and push notifications

**Patient Pass** wanted to enable fast, easy, and secure communications between patients and medical offices. Their biggest obstacle was the cost and time required to build and support a HIPAA-compliant infrastructure. So they went with PubNub for a scalable, reliable, and compliant messaging system. Using PubNub eliminated the burdens of building and maintaining a compliant chat infrastructure, and let **Patient Pass** devote those resources to innovative features and user engagement while getting their product to market as quickly as possible.

# Efficient Engagement

## CUSTOMER CHALLENGES

- Improve the patient experience through better communication
- Integrate with back-office solutions for automated alerts and reminders
- Allow easy communication while maintaining HIPAA compliance

## PUBNUB VALUE

- Full-featured messaging, alerts, and push notifications
- Simple APIs and over 75 SDKs for easier and faster integrations
- Secure and HIPAA-compliant communication

**Relatient** wanted to integrate back-office practice management systems with a mobile app for more operational efficiency, less no-shows, and a better patient experience. It would modernize the typically slow and manual tasks common in every medical practice, helping to cut costs and giving patients a faster, more convenient way to handle healthcare needs. But HIPAA-compliant messaging was a challenge, so they chose PubNub Chat to provide reminders and notifications of appointments and cancellations. For customers, the app replaced costly phone calls with two-way and broadcast messaging. For **Relatient**, PubNub eliminated the burden of managing an in-house chat platform and gave them more resources to add more and better product features.

## 04

# PubNub Ensures Compliance

It's easy to video chat with a friend no matter where they are; just tap a button and they're on your phone. But translating that experience to the doctor-patient relationship is no easy task. Privacy, security, and regulatory hurdles add cost and complexity to any solution, while building and maintaining the necessary data and communication infrastructure increases costs even more. But PubNub provides an easy and cost-effective solution to all of those challenges.

### PubNub Delivers

- Easy implementation of chat, messaging, and alerts with minimal development time
- Advanced security with end-to-end, message-level encryption
- World class compliance for HIPAA and beyond

# Reliable Consultations

## CUSTOMER CHALLENGES

- Modernize how patients interact with their doctors
- Ensure critical healthcare information gets through without fail
- Overcome the burden of HIPAA compliance

## PUBNUB VALUE

- Easy implementation of messaging and chat with little development time
- Simple APIs and over 75 SDKs for easier and faster integrations
- HIPAA-compliant communication

**MaNaDr** was creating a secure platform to connect patients with their doctors in realtime and eliminate travel and appointments. But regulations and concerns about privacy were hard to overcome, as were reliability concerns when potentially life-saving information couldn't be delayed or misrouted. So **MaNaDr** focused on giving patients a modern tool to connect with their doctors while PubNub Chat's 99.999% uptime SLA and global 100 ms latency eliminated their concerns about reliability. PubNub's HIPAA-compliance also eliminated worries about regulations or concerns about data privacy. Now, **MaNaDr** can enable virtual diagnosis, screenings, consultations, and even appointment scheduling using realtime two-way communications built on PubNub.

# Regulatory Compliance

## CUSTOMER CHALLENGES

- Enable secure, encrypted messaging between doctors
- Eliminate reliability and scalability concerns without excessive costs
- Ensure regulatory compliance under intense government scrutiny

## PUBNUB VALUE

- Advanced security with end-to-end, message-level encryption
- Easy-to-use powerful integrations with top technology providers like AWS
- World class compliance for HIPAA and beyond

**MedX** wanted to create a secure, doctor-to-doctor messaging system that offered end-to-end encrypted conversations while being fully compliant with AHPRA, the Australian equivalent of HIPAA. They initially developed a complex in-house infrastructure. But after launching their first version, stability issues and bugs threatened their success. So **MedX** focused on new features, increased usability, and user engagement while PubNub gave them the security, compliance, and reliability they needed. **MedX** even used PubNub to add a realtime medical newsfeed and integrated Amazon Translate and PubNub Integrations for realtime, automatic language translation. The relaunched app proved so successful that the organization is now expanding to France and the U.K., even as security and privacy regulations change across borders.

05

# The Takeaway

These innovative developers, and many others, are helping healthcare providers deliver better care more efficiently, giving patients more convenience and satisfaction, and ensuring every interaction is secure and in compliance with appropriate regulations. But even the most groundbreaking solution won't be successful if the experience falls flat due to a weak foundation. Meeting today's high expectations on usability, speed, reliability, platform compatibility, and ecosystem integration can distract developers for months, consuming budget and derailing a promising solution before it has a chance to launch.



06

# Building Healthcare Innovation on PubNub

Healthcare product development teams use PubNub in a variety of ways to create the best outcomes for their patients while keeping both providers and patients excited and coming back to their applications. Customers come to PubNub because:

- End-to-end HIPAA compliance meets regulatory requirements and lets healthcare providers deliver better patient outcomes, faster.
- Secure messaging ensures data in transit is safe and patient data is not at risk of being compromised.
- 99.999% uptime creates an always-on and reliable experience for

doctors and patients whenever a health concern needs to be addressed.

- Chat keeps patients, providers, and others in contact instantly and reliably.
- Push notifications and updates keep patients on top of their care and keep them engaged with their healthcare providers.
- User state and Presence allow patients and providers to know when the other is available and their current status.
- Geolocation and location tracking allows mobile health providers and services to help patients get to their appointments and prepare treatments and responses in realtime.

07

# PubNub Lets Developers Focus on Engaging Healthcare Experiences

No matter where your solution falls on the patient-provider cycle, PubNub enhances the experience and helps you get it into the hands of users faster and with less effort. Compliance, security, and privacy are challenging obstacles, but we've overcome them so you can focus on what's most important. Instead of pulling resources away from building the product you need, you can use PubNub to handle the infrastructure while you help patients receive faster and more convenient care and enable providers to deliver a better, more efficient, and more engaging experience. [Learn more and start building your healthcare solutions on PubNub today.](#)

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