



PATIENT COMMUNICATION APP: CLOSING THE GAP BETWEEN ICU PATIENTS, FAMILIES, AND CARE TEAMS

About the Client:

The Client is a software development platform company that empowers businesses to build, launch, and scale applications quickly using a modular, code-driven approach. By combining reusable code components with AI-powered project management tools, they enable faster delivery of secure, enterprise-grade solutions.

Region:

North America

Industry:

Software & Technology

The Challenge: A Critical Need for Connection

With the hectic pace of intensive care unit (ICU) environments, patients are left isolated – neither able to communicate with their family nor even the medical professionals working on them. Families, longing for information, are frustrated with uncertainty, and caregivers are burdened with operational delays in conveying information. The necessity for an effective, secure, and transparent communication system had never been more urgent.

A major healthcare organization saw this challenge and initiated a search for a solution that would help overcome the gap in communication among ICU patients, families, and proxy team members. The old standbys of patient information delivery – phone calls, on-site visits, or piecemeal digital alternatives – were inadequate and often fallible. Ventilator-bound or immobile patients couldn't actively convey their needs, causing them to rely more on hospital personnel. The hospital required a cloud-based managed service that provided real-time communication while keeping tight data security standards.

Solution: Cloud based Healthcare Communication Application

Understanding the urgency and sensitivity of the matter, Datamatics came up with a robust solution.

- **AWS Cloud-based Healthcare Communication Application:** Supported by cutting-edge cloud consulting services, the application was architected with AWS PaaS services such as EKS, CloudFront, S3, RDS, SQS, and SNS to address scalability and high availability.
- **Voice Messaging System:** In order to maximize patient satisfaction and reduce dependence on staff, a "Hold to Talk" facility was introduced whereby patients could leave voice messages that would be played automatically to their relatives and caregivers. This greatly enhanced real-time communication, allowing medical teams to respond to patient needs in a timely manner.
- **Secure data encryption:** Security was paramount. Datamatics enforced end-to-end encryption, meaning that all data in transit and at rest was secure. The platform also permitted multiple patients to remain in contact with their loved ones at the same time, revolutionizing the ICU experience from one of solitude to one of continuous support.

The Impact

24/7 Communication Channel
patient, family, and hospital
staff connectivity

99.6% high availability, providing
for no breaks in communication

51.8K voice messages processed,
greatly offloading the hospital staff

Real-time patient data update

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