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CASE STUDY:

SUCCESSFUL IMPLEMENTATION OF REDCOM SIGMA ANDROID CLIENT

OVERVIEW

Envative successfully delivered the REDCOM Sigma Android Client, a custom mobile solution designed to meet the complex communication needs of REDCOM Laboratories, Inc. This case study outlines the project objectives, challenges, solutions implemented, and the measurable outcomes achieved.

CLIENT BACKGROUND

REDCOM Laboratories, Inc. is a leader in secure and reliable communication solutions, serving government agencies, enterprises, and service providers worldwide. REDCOM sought to develop the Sigma Android Client, an advanced mobile application designed to provide Unified Communications (UC) functionalities, including voice calling, video calling, chat, presence, and directory services. The primary goal was to extend the capabilities of REDCOM's Unified Communications Server (UCS) to mobile users, enabling secure and seamless communication on Android devices.

OBJECTIVES

- Develop a robust, secure, scalable Android client for REDCOM's communication systems.
- Ensure compatibility with various network configurations, including VPN and DSCP signaling.
- Implement advanced voice functionalities, including echo cancellation, silence suppression, and multi-party conferencing.
- Provide a user-friendly UI/UX for seamless user interaction.

CHALLENGES

- Complex integration with REDCOM's proprietary communication protocols.
- Ensuring consistent performance across diverse Android devices and network environments.
- High-security requirements for voice and data communication.
- Delivering a reliable and responsive user experience under varying network conditions.

SOLUTIONS IMPLEMENTED

- Utilized Envative's custom Agile development methodology to maintain flexibility and ensure timely delivery.
- Developed a native Android application optimized for performance and security.
- Implemented advanced voice processing algorithms, including echo cancellation, jitter buffering, and packet loss concealment.
- Designed an intuitive UI/UX, enhancing usability and reducing end-user training time.
- Employed automated testing and Test-Driven Development (TDD) to ensure high-quality deliverables.

Envative leveraged its custom Agile development methodology to maintain flexibility and ensure timely delivery. Advanced voice processing algorithms, including echo cancellation, jitter buffering, and packet loss concealment, were implemented to enhance call quality. An intuitive UI/UX design improved usability, reducing training time for end-users.

RESULTS & OUTCOMES

Envative successfully delivered the REDCOM Sigma Android Client on time and within budget, achieving:

- Seamless integration with REDCOM's existing communication infrastructure.
- Enhanced user experience through an intuitive interface and robust communication features.
- Improved communication reliability across various network types, including VPN and DSCP configurations.
- Positive client feedback on performance, usability, and security.

KEY SUCCESS FACTORS

- Deep technical expertise in mobile communication and security protocols.
- Strong collaboration with REDCOM's team to ensure alignment with business and technical requirements.
- Agile project management approach, allowing adaptability and iterative improvements.

CONCLUSION

Envative's successful implementation of the REDCOM Sigma Android Client demonstrates our capability to deliver complex, secure, and high-performance mobile solutions. This project highlights our commitment to innovation, quality, and client satisfaction.

CONTACT INFORMATION

Craig Lamb
Partner

✉ clamb@envative.com
📞 585.324.0469
📱 585.455.6345

Development Experts