

US ARMY



CASE STUDY

ASTERISK

OVERVIEW

Asterisk® provides domestic calling services for military personnel in Iraq. Innovation Award Winner Intuit Innovation provides a 10,000 concurrent call Asterisk-based solution for U.S. Military service members overseas.

Answering the Call of Duty with Asterisk®

CHALLENGE

Thousands of miles and many bodies of water separate United States Army service members, and their families, while deployed in Iraq. Utilizing existing satellite phones, personal communications between service members and their families was difficult and expensive, and the U.S. Military began searching for a cost-effective and reliable method for personal communications.

SOLUTION

Mike Spratt, from Magic Islands Solutions contacted Intuit Innovation, a Malaysia-based Asterisk solutions provider. Through careful planning and design, Intuit Innovation crafted a highly-scalable and cost-effective Asterisk solution for the U.S. Army in Iraq. Now, soldiers enjoy the ability to easily and affordably communicate with loved ones in the U.S through the use of wired, wireless, and web browser-based telephones at Army bases in Iraq.

Army service members now enjoy the benefits of an ultra-modern communications solution, including voicemail-to-email, personal US-based Direct Inward Dials, and the choice of telephones.

IMPLEMENTATION

Dr. Daniel Krahenbuhl, President and CEO of Intuit Innovation outlined the many challenges that arose in this complex project. “Scalability and reliability were major factors,” notes Dr. Krahenbuhl. “Many back-end load-balancing and high-availability considerations were implemented through the flexibility of Asterisk.” The Intuit Innovation team utilized a modern and innovative approach towards system architecture that proved to be extremely successful in this project.

Through the use of over 20 blade servers located in an Iraq datacenter, Intuit Innovation's solution included 10 Asterisk servers, real-time billing and least cost routing systems, and MySQL database clusters containing real-time information supplying the Asterisk dial plan. Through thorough testing, Intuit Innovation estimates that each Asterisk server can handle up to 1,000 concurrent calls, allowing for unparalleled upward scalability. In the event that more demand is needed from the customer, more servers can simply be added to the system.

To connect to the Public Switched Telephone Network, Intuit Innovation utilized satellite uplinks to transport calls back to the United States. Reliability of the satellite links was monitored through custom-developed Nagios integration.

RESULTS

Intuit Innovation's custom Asterisk-based solution proved to be invaluable to the thousands of U.S. Army service members who needed a reliable and feature-rich solution for U.S. domestic calling to-and-from Iraq. All of the project's goals were met and exceeded, delivering highly-available communications at low costs.

While U.S. Army service members may not immediately realize the true power behind Asterisk, the thousands of calls placed on the system every day prove that soldiers can rely on this system for their important calls to family members and loved ones.

Digium's vision is a world based upon open communications.

Our mission is to transform the way businesses acquire and operate their communications systems through the application of open source software.



The Asterisk Company

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