United States Marine Corps Enlists Xirrus to Develop In-theater Wireless Networking Solutions Throughout Pacific Bases

Established in 1775, the United States Marine Corps is America's premier expeditionary force, ready to protect the nation's interests on the battlefield, in the air, and by sea. MARFORPAC, or the Marine Forces Pacific, is the largest field command in the Marine Corps servicing upwards of 74,000 troops. With the proliferation of wireless-enabled devices, having a reliable, secure, and robust wireless network became a strategic part of MARFORPAC's IT planning and was critical to improving connectivity efficiencies, expanding wireless services and controlling IT expenditures.

After an extensive evaluation, Xirrus was awarded a multi-million dollar Indefinite Delivery/Indefinite Quantity contract (IDIQ) to provide high performance wireless products and develop in-theater wireless networking solutions for the United States Marine Corps (USMC).

Wireless networks as secure as wired

The U.S. Marines required a wireless network that was able to securely extend access to the wired network, SIPRNet (Secure IP Routed Network), for file access, email, and other bandwidth-intensive applications. And it needed to be done right.

After testing Xirrus wireless solutions for real-world performance and ease of use, USMC affirmed that the Department of Defense certified Xirrus wireless Array technology was mil-spec, and its communiqués secure. FIPS140-2 certified Xirrus products meet the required DISA STIGS and delivered what you'd expect from Xirrus – advanced security features that meet the accreditation standards of a wireless SIPRNet installation. As a result, a Xirrus wireless SIPRNet solution was granted ATO (Authority to Operate) MARFORPAC-wide.

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Infrastructure requirements included:

- Cover nearly 300 sites across 19 US Marine Forces Pacific installations
- FIPS140-2 certified, meet the required DISA STIGS
- High bandwidth, scalable, upgradeable,
- Simplified installation, integration, management

Xirrus Solution Provided:

- Improved device and user density and throughput with 4 to 16 radios per Array
- Greater coverage with high-gain directional antennas
- Distributed intelligence in each Array with no central controller
- A modular platform for simplified capacity expansion and field upgrades
- Easier installation and network integration with on-board switch, firewall and management
- Increased RF security with a dedicated threat sensor in each Array

Benefits:

- Self-contained architecture with integrated controller
- Easily operated, deployed, and maintained
- State-of-the-art security features and standards including FIPS 140-2
- Highly reliable wireless with maximum bandwidth and range
- Full solution network with a minimum-number of devices reducing overall cost

Wireless networks that are 4x better than wired

The USMC also wanted a more streamlined network, with more bandwidth and coverage, both of which are core elements of the Xirrus infrastructure. Compared to conventional thin APs and closet controller technology, Xirrus Arrays integrate 4 to 16 radios, high-grain directional antennas, a multi-gigabit switch, controller, firewall, and threat sensor into a single access device. By design, this architecture provides 4X the coverage and up to 8X the bandwidth of its wired counterpart.

The extensive coverage area and large amount of bandwidth that results from this type of architecture has allowed the Marines to deploy a secure, high-capacity wireless network with fewer devices and, therefore, fewer cable drops. Less equipment means a significantly lower infrastructure deployment cost for a network that delivers flawless and secure wireless access, meets government security compliance and data-sharing regulations, and provides wired-like network reliability and security.

The unique, self-contained architecture of the Xirrus Array also provides a greater level of resiliency in case of network failure and also allows the Array to be used in the field as a stand-alone system without the need for a back-end wireless controller. The Xirrus Rapid Deployment Kit includes all the elements needed to transport and set up a pervasive wireless network for the Marine bases and field operations. The bottom line – only Xirrus could provide a secure, reliable, robust wireless network that met all of the USMC's installation goals, deployment budget and installation timeline.

The Xirrus Advantage

With the explosion of smartphones and tablets, mobility has become ubiquitous. People expect to connect wirelessly. Organizations depend on high-bandwidth to send and receive voice, video and data, from any device to any one. And no one delivers better than Xirrus. Our array-based solutions are unique. They draw from cellular tower design principles to provide wired-like reliability, increased user density and capacity plus superior security. They perform under the most demanding conditions and have lower infrastructure requirements. When integrated with business and IT objectives, they help you do more than ever before.

At Xirrus, we apply the "best practices" of wired networking to wireless infrastructures by distributing the intelligence to the edge and outfitting the Array with dense multi-state radios in the same manner as a wired switch. That's how Xirrus delivers the best performing, most scalable wireless solutions in the industry. It's a strategic IT infrastructure advantage that fuels organizations. Because Xirrus does wireless networks right.

XIRRUS®
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