

CASE STUDY

NSA SUITE B-COMPLIANT ARUBA GIGABIT WI-FI MOBILIZES U.S. ARMY, ARMY NATIONAL GUARD AND ARMY RESERVE COMMAND POSTS

U.S. ARMY

Whether engaging in combat situations, defending the homeland, providing humanitarian aid or conducting disaster relief missions, the U.S. Army relies on command post network communications as fundamental infrastructure.

Whenever units move or “jump” base locations, agility is a key component in achieving overmatch against increasingly capable enemies, the Army says. The faster the tactical operations center (TOC) network becomes available, the better regardless of mission type or location.

COMMAND POST WI-FI ENABLES FASTER BASE RELOCATIONS

Having developed a variety of advanced battle systems to aid in mission command and situational awareness, the Army has experienced a rising number of applications that connect to a unit’s network. Also, unit reliance upon the network has grown exponentially.

Previously, with wired networks, it took hours after arriving at a new location to get command post networking up and running, leaving units without access to critical information systems.



For a wireless networking solution that could expedite troop mobility, the Army selected 802.11ac Wi-Fi infrastructure by Aruba, a Hewlett Packard Enterprise company, to create a secure system called Command Post Wi-Fi.

REQUIREMENTS

- Secure, NSA Suite B-compliant Wi-Fi
- Quick-deployment solution
- Scalable, flexible kit-based

SOLUTION

- 802.11ac Indoor & Outdoor APs
- 7000 Series Cloud Services Controllers
- Policy Enforcement Firewall with RFProtect
- Suite B Advanced Cryptography
- AirWave for network management

BENEFITS

- Reduces command post networking set-up from hours to minutes.
- 802.11ac provides high performance to global expeditionary force.
- Improves force agility and maneuverability.
- Supports battlefield, humanitarian, homeland and disaster relief missions.
- Saves on costs and space, enabling transport of other supplies and multipliers.

“ Command Post Wi-Fi is a game-changer. ”

NSA SUITE B SECURE, SCALABLE & FLEXIBLE SOLUTION

A key driver for adopting Aruba’s solution is compliance with NSA Suite B, also called Commercial Solutions for Classified, a set of publicly available algorithms approved by the U.S. National Security Agency (NSA). NSA Suite B serves as the cryptographic base for unclassified and most classified information, bringing information security to military Wi-Fi networks.

Other reasons for the Army’s selection of the Aruba Wi-Fi solution were integrated WLAN, VPN, WIDS and firewall capabilities, as well as scalability and flexibility across Windows and Android platforms. The Army also appreciated the hands-on support from sales, systems engineering, product line management, and engineering that Aruba provides.

Command Post Wi-Fi Solution Kit

Fielded as part of the Army’s Warfighter Information Network-Tactical (WIN-T) Increment 1, the U.S. Army’s tactical communications network backbone, the 802.11ac-enabled solution is being supplied as kits.

Purchased through the Army's CHS4 contract, each kit includes Aruba indoor and outdoor Gigabit Wi-Fi access points (APs), which deliver high performance in high-density environments. Additionally, the kits include 7000 Series Cloud Services Controllers with RFProtect, Policy Enforcement Firewall and NSA-approved Suite B cryptology and AirWave for network management.



WLAN UP IN MINUTES, ENABLES FORCE MULTIPLIERS

By using wireless networking rather than wired, brigade command posts eliminate the time-intensive process of deploying CAT 5 cabling and laying down specialized protective flooring. By no longer cutting, configuring and plugging in cables, setting up command technical operations is reduced to minutes.

Additionally, with Command Post Wi-Fi the Army gains a system that is smaller, uses less power and is more modular. With wired networking, a command post required 17 boxes of 1,000-ft cable reels, weighing a total of about 250 pounds. Also, less protective flooring is transported from location to location.

For a global expeditionary force, this translates to cost savings, in terms of fuel, and space availability for other items that get loaded onto transport aircraft, such as mission equipment, humanitarian supplies or other multipliers.

Less troubleshooting improves force support

Command Post Wi-Fi also reduces the administrative overhead associated with wired networking. For instance, cabling is rolled up and unrolled multiple times as brigades jump to

new locations. This eventually causes wiring failures, which can occur once miles of cable are already run underneath the protective flooring.

With wireless, soldiers no longer spend time hunting for and identifying the affected wire, then removing it and re-running new wire. On the battlefield, this means soldiers can stay focused on the mission rather than troubleshooting wires.

Leveraging Mobility for Data + Voice

Another significant mission benefit comes from the ability to move around a command post without losing connectivity.

For example, in a Wi-Fi enabled command post, a soldier with a question can pick up his mobile device, walk the length of the post to get the needed answers and travel back, while still carrying out his mission duties. This improves support to his comrades in the field.

Also, the system enables the use of Voice over wireless LAN (VoWLAN), the Wi-Fi form of VoIP, and Secure Voice over Internet Protocol phones. This not only reduces additional cables but also untethers commanders and soldiers from their workstations, the Army says.

WI-FI A GAME-CHANGER ON THE BATTLEFIELD & BEYOND

According to the Army, Command Post Wi-Fi is an overall game changer. Network communications are now up and running within an hour of arriving at a new location.

The agility and flexibility enabled by Wi-Fi improves a brigade's ability to adapt to changing conditions. With wireless, units are more mobile and can easily maneuver, as circumstances require.

Ebola outbreak support and beyond

Beyond U.S. and coalition battlefield operations, Command Post Wi-Fi capabilities have already supported the Ebola outbreak in West Africa. Going forward, National Guard units will have the capabilities, enabling them to provide wireless immediately to first responders and non-governmental agencies during disaster support missions.

In the near term, Wi-Fi capabilities will be fielded across all Joint Network Nodes (JNNS), over the next few years, the Army says. This includes U.S. Army, Army National Guard and Army Reserve tactical units. Long-term, the plan is proliferating Wi-Fi across WIN-T.