Coalition network moves to Korea

U.S. Army

ABERDEEN PROVING GROUND, Md., (Sept. 7, 2012) -- Since it was stood up two years ago, the coalition network has become the standard enclave in which to share data and situational awareness between U.S. and coalition forces in Afghanistan. Now a similar tactical network is being upgraded in South Korea to enable U.S. partners in that country to reap similar rewards.

"These networks give commanders in a coalition environment, both U.S. and coalition teammates, the ability to collaborate on the battlefield on a common operational picture," said Lt. Col. Greg Coile, product manager, or PdM, for Satellite Communication, and PdM for Warfighter Information Network-Tactical, known as WIN-T, Increment 1, which manages the U.S. portion of the coalition networks.

In Afghanistan, the Afghan Mission Network, or AMN, enables the coalition to share critical battlefield information among its partners. The Afghan government and military also utilize some of that information to help bring peace to the region. Using the North Atlantic Treaty Organization, known as NATO, International Security Assistance Force, or ISAF, secret network as the backbone, AMN marries network extensions from each participating nation. From their respective secure networks, and at their individual discretion, separate coalition forces share data, situational awareness and commander's intent across the battlefield on this centralized network.

The Combined Enterprise Regional Information Exchange System, or CENTRIXS,-ISAF, or CX-I, is the U.S. component of AMN. After playing a major role in standing up CX-I, the Program Executive Office for Command, Control and Communications-Tactical, or PEO C3T, continues to support the network. As part of this ongoing effort, Project Manager (PM) WIN-T, assigned to PEO C3T, provides the equipment, fields and trains CX-I, and is now conducting a similar mission in South Korea, with CENTRIXS-Korea, known as CX-K.

"CX-I is the main command and control network now used in the Afghanistan theater," said Tom Jaycox, PM WIN-T's project lead for CX-I and CX-K. "It's becoming a way of business for the Army. It seems we are always going to fight in a coalition of some sort, so having a coalition network capability is essential to the way the Army conducts operations. South Korea is no exception. "

Although the U.S. and South Korea have been on a shared network for some time, U.S. tactical WIN-T Increment 1 systems, such the Joint Network Node, or JNN, and Battalion Command Post Node, known as BnCPN, in that theater do not possess the capability to operate on the shared network, said Shannon Jones, former WIN-T Increment 1 operations manager and former PM WIN-T project lead for CX-I.

"The U.S. tactical systems in South Korea are not 100 percent useful if they don't

have a coalition network element," she said. "They really need it in order to be effective in that theater."

Similar to a home Internet connection, WIN-T Increment 1, formerly known as the "Joint Network Node-Network," began fielding in 2004, and provides Soldiers with high-speed, high-capacity voice, data and video communications down to battalion level units, "at-the-quick-halt." WIN-T Increment 2 supports operations while "on-the-move," introduces networking radios, enhances Network Operations for network planning and monitoring and pushes capability down to the company level.

It is scheduled to field to Army brigade combat teams starting in October 2012, pending a Full Rate Production decision in September, and it will also be compatible with the coalition networks.

When PM WIN-T fulfilled the requirement for the coalition package in Afghanistan two years ago, it fielded an additional coalition network enclave for its WIN-T Increment 1 equipment. Each system had already possessed two other network enclave packages -- one for Non-secure Internet Protocol, known as NIPR, which is unclassified, and another Secure Internet Protocol, or SIPR, which is classified, Jones said.

PEO C3T validated a $7.275 million cost avoidance in fiscal year 2011 for reusing displaced or "end of life" equipment including JNNs, BnCPNs, and Baseband Tactical Hub Nodes to meet requirements for the CX-I operation needs statement, other programs and initiatives. The reuse of equipment allowed PdM WIN-T Increment 1 to rapidly field CX-I to units in theater and meet deployment timelines.

PM WIN-T is now entering into a rotational sustainment phase with its management of the CX-I effort.

The CX-K effort is much the same as the CX-I effort. PM WIN-T had already been fielding the Army's requirements for WIN-T Increment 1 equipment in South Korea, including the NIPR and SIPR network enclaves, or "stacks." The PM is now fielding the additional classified coalition stack, which is similar in design to the NIPR/SIPR stacks, so it is easily integrated and "plugs right in," Jaycox said.

Since PM WIN-T is fielding the same accredited WIN-T Increment 1 equipment already in use, additional training for Soldiers on the equipment isn't needed, thus providing substantial cost avoidance and sustainability for the Army. CX-K is fairly simple to implement from a technical perspective, and it's easy to support utilizing PM WIN-T Field Support Representatives already in theater, Jaycox said.

"CX-I and CX-K improve communication and sharing between the partner nations, and that's really the bottom line," said Jones. "They need to have shared resources, which is something they don't have without that coalition network."

Although Afghan and Korean networks are vastly different in design and mission, there are still lessons learned from CX-I that are directly applicable to CX-K. So PM WIN-T is using CX-I as a model to help facilitate the CX-K effort.

PM Mission Command conducted an Assistant Secretary of the Army for Acquisition, Logistics, and Technology, or ASA(ALT)-directed assessment of CX-K requirements and architecture. As part of that effort, PM WIN-T directly applied lessons learned from CX-I to establish the tactical baseline currently being issued to Eighth United States Army in Korea, Jaycox said.

"The big part in the transition to mission networks was to come up with a standard way to implement them," said John Shotwell, chief engineer for WIN-T Increment 1. "With CX-I, they had a lot of mission command capability on SIPR and they wanted to put it on this new network."

At the start of the CX-I effort, PM WIN-T utilized retrograded equipment from other efforts until new equipment could be acquired, and a similar strategy is going on in Korea, Shotwell said.

To keep down costs and increase efficiencies, PM WIN-T again reutilized equipment and resources from previous requirements that were no longer needed in other arenas and leveraged those resources for the CX-K effort. The Army already had the equipment on hand and the team laid the groundwork for the effort, so when PM WIN-T received the order, it was ready to execute.

The official word to execute CX-K came on June 8; PM WIN-T started shipping equipment to Korea by June18 and by the end of June, the PM had all 39 kits in Korea ready to start configuration, training and fielding. The PM expects to have those kits installed and ready to go for the joint U.S. and South Korea Ulchi Freedom Guardian exercise in August, an annual joint military drill to improve combat readiness on the Korean peninsula, Coile said.

"In less than 30 days of getting the word to execute, the Increment 1 team had 39 battalion kits in Korea. (This was a) superb effort by the team to make CX-K a success story," he said.

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