

ESB network management paradigm shifts

By CW2 Joshua Callahan

Leaders of the Signal Regiment have made it clear that they want to encourage creative solutions for future programs and technologies that improve shortfalls with today's units and systems.

The expeditionary Signal battalion has been fully engaged in the operational battle order since July 2007. The operational requirements have ranged from assignments supporting regiments at the headquarters level, military transition teams, brigade combat teams augmentation and Striker BCTs, to joint support with Homeland Defense/Homeland Security missions. The ESB has also provided strategic support to tactical technical control facilities. To provide this support they have been detailed into every level including, team, expeditionary Signal company, battalion minus and everywhere in between.

The job of network operations over the past few years has been difficult and frustrating. The amount of tools available is not the issue. The major concern is determination of "who's in control and who's responsible?" The known assumption is that the battalion staff will always go where the battalion commander goes, and with that staff comprises the NETOPS section. As network managers, one of our many responsibilities is to provide the commander networked command and control world-wide. No matter where the commander is, or where command assets are located, providing situational awareness and/or network management for the commander is essential.

Using the recent operational tempo of one ESB over a two year span, one can gain an understanding of how disassociated the unit can become. Immediately after being fielded Joint Network Node equip-

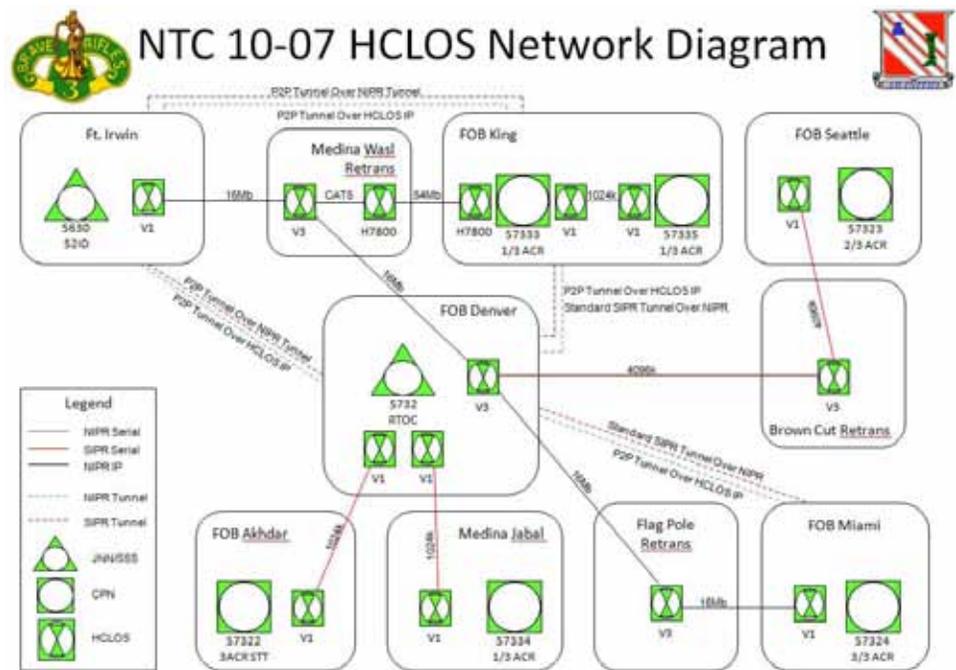


Diagram 1

ment, one unit deployed to Iraq as a battalion minus for 15 months. Another ESC, which deployed a few months earlier, supported a regimental headquarters for 15 months. The battalion's mission was multifaceted, providing support across three separate divisions as well as connectivity between "strategic" TCFs in-country. The battalion then redeployed to the United States and was hurriedly pushed through the reset program in order to provide support for an 18-month joint task force-civil support chemical, biological, radiological, nuclear, and high yield explosives mission. The previously deployed ESC was tasked yet again to prepare for yet another deployment in support of a Regimental headquarters. This was separate from the battalion and the battalion's Army Force Generation cycle. Once the battalion completed the 18-month JTF-CS mission, its remaining two ESCs were tasked to

deploy to two separate theaters supporting two separate missions.

In light of this operational tempo, technical and personnel changes could go a long way in providing a more solid network C2 for an ESB commander whose assets are continually engaged in missions across the globe.

First, each ESC should be assigned a WO1/CW2 255N. An ESC's BCT (which is smaller in asset size) is afforded a 255N. If an ESC can deploy autonomous from the battalion it seems reasonable that it should be afforded no less. The recent Signal Functional Area Assessment recommended course of action, currently out for world-wide staffing, suggests this personnel move within the ESB.

Second, an ESB could establish a network operations center at its home station, utilizing the

Global Network Enterprise Construct. Doing this would provide situational awareness for a commander whose assets can be engaged in separate missions across the globe at any given time. The GNEC provides a global plug-and-play ability to connect to Army, joint and commercial networks through all phases of joint operations. Leveraging this capability will enable an ESB commander to maintain a sufficient level of situational awareness regardless of where command assets are throughout the world. This capability increases exponentially when an ESB runs concurrent missions in both CONUS and overseas. The degrees by which a commander maintains network C2 can be adjusted and maintained from one central location. In addition, by maintaining a home station NOC, the battalion can afford

those key individuals the opportunity to maintain perishable skills operating the battalion level NETOPS suite of equipment. It also allows for the equipment to stay current and updated on key patches, Information Assurance Vulnerability Alert updates, etc. The equipment would always “remain on,” maintaining a constant state of readiness should the NETOPS cell need to deploy from its home station.

In the current operational environment NETOPS control for non-organic Signal units is being pulled away from the battalions and brigades and continues to be consolidated at the higher, joint levels. This will not always be the case, however, as situations compel the need to be prepared for a push into a new engagement, to fight in

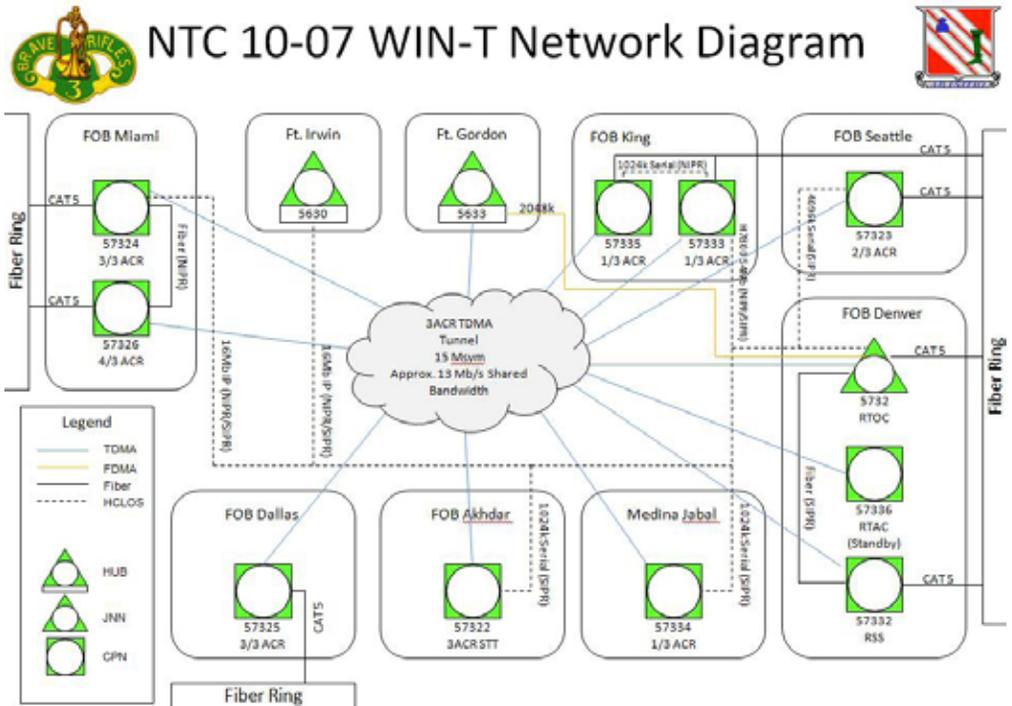


Diagram 2

an unconventional conflict, or provide support to the ongoing HLD/HLS missions. With these possibilities at hand the ESB’s NETOPS must be prepared and capable to provide the commander solid and thorough network C2 anywhere, at anytime, and to any degree.

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ACRONYM QuickScan

ARFORGEN - Army Force Generation
BCT - Brigade Combat Team
BN - Battalion
BDE - Brigade
C2 - Command and Control
CBRNE - Chemical, Biological, Radiological, Nuclear, and High Yield Explosives
CONUS - Continental United States

ESB - Expeditionary Signal Battalion
ESC - Expeditionary Signal Company
FAA - Functional Area Assessment
GNE - Global Network Enterprise
GNEC - Global Network Enterprise Construct
HLD - Homeland Defense
HLS - Homeland Security

HQ - Headquarters
IAVA - Information Assurance Vulnerability Alert
JNN - Joint Network Node
JTF-CS - Joint Task Force-Civil Support
MiTT - Military Transition Team
NETOPS - Network Operations
NOC - Network Operations Center
TCF - Technical Control Facility