



# ***Industry Day***

## ***Brigade Combat Team Modernization***

***LTC Jim Lopez***

***Capabilities Development & Integration Directorate  
U.S. Army Signal Center***



# *Purpose & Agenda*

## PURPOSE:

Provide AFCEA Industry Day forum participants with an overview of the Brigade Combat Team Modernization Capability Set process, emerging Network capability solutions and generate discussion regarding the LANDWARNET and Global Network Enterprise Concept (GNEC) – focusing on BCT modernization.

## AGENDA:

- TF 120, BCT MOD Background
- Problem with current approach
- NETWORK Capability Set Process
- Battle Command Essential Capabilities
- BCEC Measurement
- POR
- Emerging Network 2010-2015





**The current approach to network and radio modernization falls short in its ability to rapidly mitigate gaps and consistently equip forces with the latest technologies while sustaining interoperable solutions.**

- **In FY10 legacy tactical radio system procurement stops and Army will begin transition of all legacy tactical radio systems to sustainment.**
- **Beginning FY11 WIN-T and JTRS are the only tactical radio procurement programs.**
- **ONS/JUONS process is used to mitigate operational gaps resulting in fielded systems without DOTMLPF integration.**
- **Every PEO given a different set of requirements, often with minimal or no interface requirements, resulting in disjointed programming, fielding and capabilities.**

***Problem: There is no holistic bridging strategy in the current approach***



# Capability Package Definition

***The bundling of DOTMLPF capabilities aligned with the POM and delivered in two-year increments in support of ARFORGEN.***

- ✓ **Fielded over a specific timeframe**
- ✓ **Fielded in unit set fielding (USF) or as stand alone based on unit / capabilities availability**
- ✓ **Must include a DOTMLPF review, assessment and integration of each capability**
- ✓ **Must be a resourced Informed analysis**
- ✓ **Fielded to the Operating Force, Generating Force (including CTCs) and APS**
- ✓ **Capabilities can be included in follow on CPs as building blocks**
- ✓ **Bridging the Gap to a Solution = Modernization**





# How did we measure the BCECs?

IBCT CP BCEC Assessment	Capability Required at the respective echelon CP						
Description	BDE	BN	CO	PLT LDR	SQD LDR	TM LDR	TM
<p><b>Robust Network Capability:</b>  <b>BASIC:</b>            1. Provides Voice Comm only.            2. Provide Voice and one-way PLI up            3. Supports General Purpose users, Platforms and Soldiers (for essential C2 and SA/PLI data). Provides single means of data Comms</p> <p><b>INTERMEDIATE: BASIC PLUS-</b>            - Provides Key Leaders full role-based C2 and SA/PLI data            - Provides Multiple paths of Comms (LOS &amp; BLOS)            - Can provide medium capacity data (low resolution imagery/video clips)</p> <p><b>ADVANCED: INTERMEDIATE PLUS-</b>            - Provides high capacity voice/video/data (command post support)</p> <p><b>FACTORS:</b>            - Transport:              ...LOS (L)              ...Limited BLOS (B)              ...LOS and BLOS (LB)</p> <p><b>Mobility</b>            ----At the Halt (ATH)            ...On the Move (OTM)</p> <p><b>Security classification</b>            ....Unclassified (U)            ....Secret (S)            ....TS/SCI (T)            ....Coalition (C)</p>	A	A	I	I	B3	B3	B2



# Battle Command Essential Capabilities

<u>Battle Command Essential Capabilities</u>	<u>Emerging Solutions to enable BCEC</u>
Robust network	FBCB2, BCOTM
Execute tactical NETOPS	FBCB2 JCR
<i>Display/Share Relevant Information</i>	Tactical Ground Reporting; Chat; shared Imagery; FBCB2 JCR;FBCB2 BCOTM
<i>Standard and Geospatial Foundation</i>	FBCB2 JCR
<i>Enable Collaboration</i>	Chat; Shared Imagery; FBCB2 JCR; FBCB2 BCOTM
<i>Create and disseminate Orders</i>	Tactical Ground Reporting; Chat; shared Imagery; FBCB2 JCR;FBCB2 BCOTM
<i>Battle Command On The Move</i>	FBCB2 BCOTM
<i>Execute a running Estimate</i>	FBCB2 JCR
<i>Joint, Interagency, Intergovernmental, and Multinational Interoperability</i>	<i>FBCB2 JCR</i>
<i>Rehearsal and Training Support</i>	

**Battle Command Essential Capabilities Drive the NETWORK Requirements**



# ***Soldier in the Network Company and Below***

- **Company**

- **Send & receive mission essential operational Information (graphics, Icons etc..)**
- **Display essential mission operational information**
- **Collaborate horizontally & vertically**
- **Communicate by voice & data (classified) horizontally & vertically**

- **Platoon**

- **Communicate by voice (classified) horizontally & vertically**
- **Transmit own position location information automatically**
- **Receive & display combatant & non-combatant locations automatically on Geo-rectified map & imagery**
- **Create/ Send/ Receive & Display messages, orders & maneuver graphics**



- **Squad & Team**

- **Communicate by voice (classified and controlled unclassified information (CUI)) horizontally & vertically**
- **Transmit own Position Location Information (PLI) automatically**
- **Receive & display combatant & non-combatant locations automatically on Geo-rectified map & imagery**
- **Create/ Send/ Receive & Display messages, orders & maneuver graphics**

- **Soldier**

- **Communicate by voice (CUI) – horizontally and vertically**
- **Transmit own PLI automatically**

**OBJECTIVE- BCT MOD GET SOLDIER IN THE NETWORK**



UNCLASSIFIED

# BCEC "BDE CP to Rifleman"

## Voice, Text, Imagery, Data, Senors, and Position Location information

BFT (L-Band)

WINT/CSS VSAT/GBS

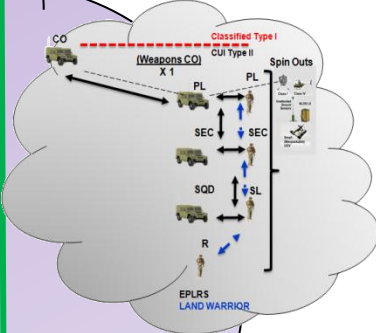
NCW (Ka/Ku)

**BCEC Requirements:**  
 Bde/Bn/Co: Voice, Video, Data, COP SA  
 PL/SL/TL: Voice, Data, SA  
 RM: Voice & PLI

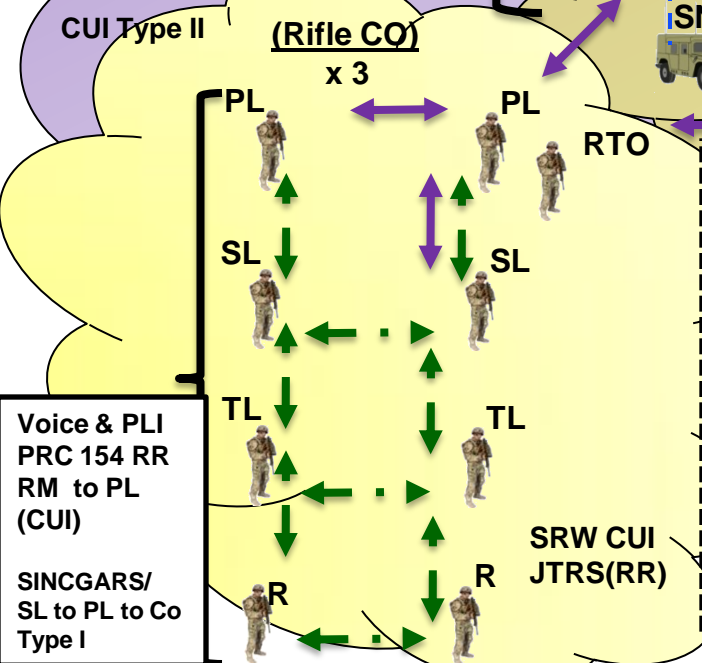
- ↔ SINGARS
- ↔ Rifleman Radio
- ↔ HNR (HNW)
- ↔ RF 7800
- BFT
- - - SATCOM



Regional Hub Node

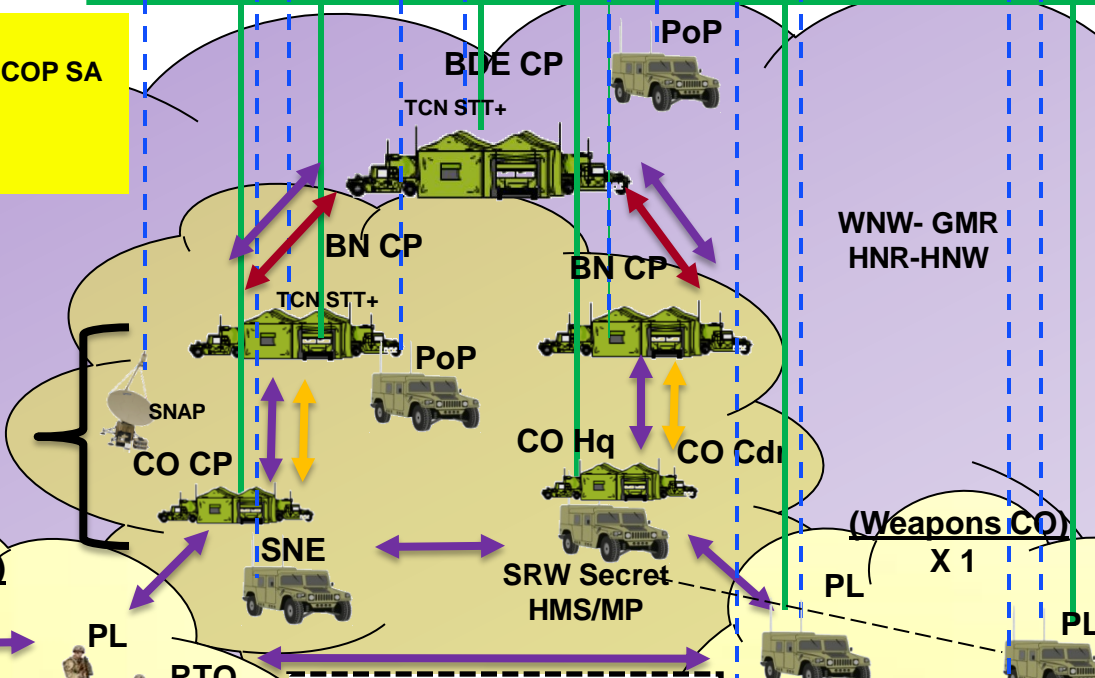


Classified Type I



Voice & PLI  
 PRC 154 RR  
 RM to PL  
 (CUI)

SINGARS/  
 SL to PL to Co  
 Type I



**Current & Emerging Capabilities SATCOM**

- WIN-T INC 1/2
- BFT
- SMART-T
- CSS VSAT
- SNAP

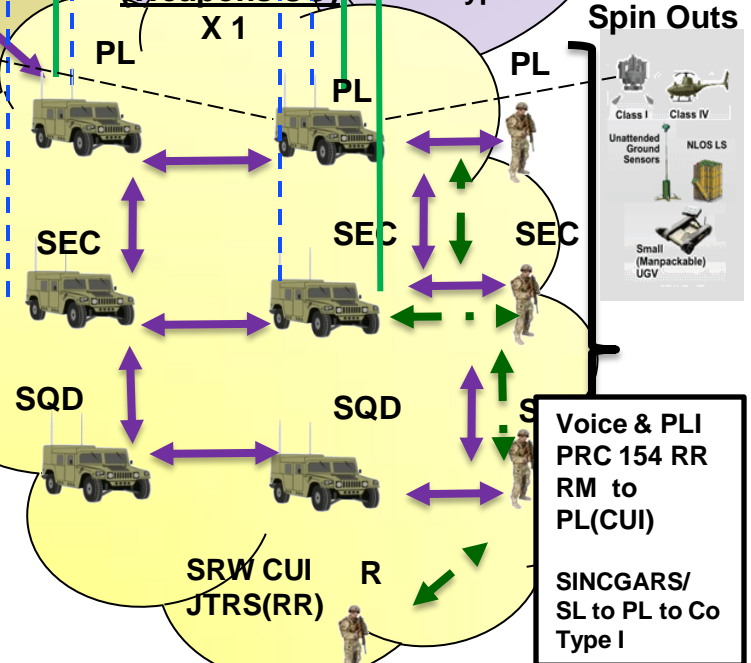
**Adhoc Radios**

- Rifleman Radio (SRW)
- GMR(4channel)
- \*SFF-S (SRW)
- FBCB2 (BFT/EPLRS)
- \*\*EPLRS (S & 3H BCTs)

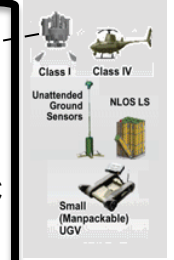
**Single Hop Radios**

- SINGARS
- MBITRS

UNCLASSIFIED



Spin Outs



Voice & PLI  
 PRC 154 RR  
 RM to PL  
 (CUI)

SINGARS/  
 SL to PL to Co  
 Type I



- **Technology generational divide- we must embrace technology**
- **Integrate legacy and future systems**
- **Eliminate the “haves and the have not”**
- **Update doctrine**
- **Validate and confirm the Signal Force Structure**
- **Get the training right**
- **Integrate Joint and interagency**
- **Provide Minimum BCEC**
- **Get the soldier in the NETWORK**



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