

*United States Army*  
*Logistics Integration Agency*

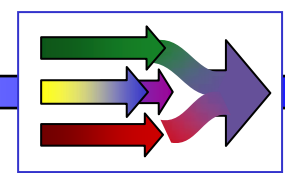


**Embedded Diagnostics and Prognostics  
Synchronization (EDAPS) Support for the  
STRYKER Brigade Combat Team**

**DOD Maintenance Symposium**

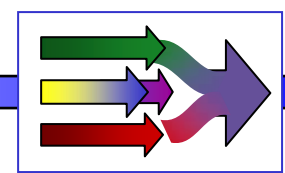
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**Dr. Miranda Keeney**  
Logistics Integration Agency  
miranda.keeney@hqda.army.mil  
(717) 770-7600



# *Outline*

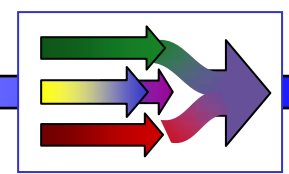
- G4 Tasking to LIA
- What is EDAPS
- Synchronization for the SBCT
- Project Goals and Objectives
- SBCT Doctrinal Concepts
- SBCT Architecture



# **G4 Tasking**

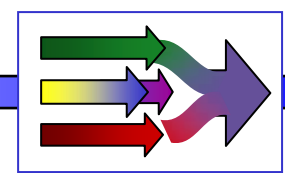
LTG Mahan, G4 Army, Tasked LIA Lead an Effort To:

- ***Pull Together All the Key Players Across the Army*** and Come up With an End State That Balances All the Current Pilots/Programs/Plans.
- ***Integrate*** Current Diagnostics and Prognostics Programs and Initiatives and Technical Approaches.
- Identify Policy and Programmatic ***Gaps and Redundancies***.
- Define and Then Re-engineer the ***Operational Architecture and Its Business Processes*** From the Platform, Through Retail, and Into the Wholesale System.



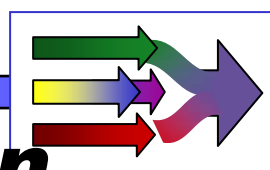
# ***What is EDAPS***

- An Over-arching *Process* to Coordinate a Unified Army Strategy to Integrate Current Initiatives, Identify Gaps and Redundancies, and Identify the Necessary Business Processes From the Platform, Through Retail, and Into the Wholesale System.
- Transformation Enabler
  - Total Ownership Cost Reduction (TOCR)
  - Footprint Reduction
  - Enhance Materiel Readiness
- Method of Synchronizing Army Policy and Doctrine to System Requirements
- A Collaborative Management Process Drawn From All Army Stakeholder Organizations
- Transition Strategy for Institutionalizing Changes



# *Synchronization for the SBCT*

- To Integrate separate independent development efforts in the areas of:
  - Embedded Diagnostics / Prognostics – ED / EP
  - Communication – Situational Awareness & Exception Reporting
  - Logistic Modernization – Anticipatory Logistics/GCSS-Army
  - Maintenance Management – TAMMS Automation
  
- And address these Requirements
  - Tactical Logistics Data Digitization (TLDD)
  - Two Level Maintenance & the Combat Maintainer
  - Mechanic's Remote Logistics Network (MRLN)
  - Condition-Based/Predictive Maintenance
  - Anticipatory Logistics (Fuel, Ammo, Diagnostics)
  - ED / EP - IETMs & Health & Usage Monitoring Applications
    - Interfaces, Data Standards/Formats and Data Flows
  
- Using:
  - FBCB2 and MTS
  - Army Standard Data Interfaces
    - ETM-I & MIL-STD 3008
  - Removable Media for large scale on-board data exchange



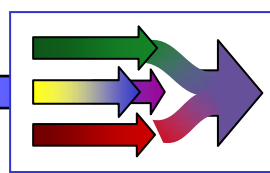
# **SBCT ED/EP Demonstration**

## **IPT Members**

<b><u>Players</u></b>	<b><u>Roles &amp; Missions</u></b>
PM-BCT	Requirements, System Integration, STRYKER Vehicle, FBCB2/EMS Interface, Embedded Diagnostic Design, AIT
TRADOC	TSM, BCT Maint Concept Design
TACOM/TARDEC	IPT Integration, IETM, MRLN, AIT, Readiness, Sustainment
PM-TMDE	ED/ EP Design/Integration, EDS, PMM, BCT HC
DA-G4/LIA	G-4 Oversight, EDAPS, AIT, Collaboration & Leadership
PM-MTS	MTS/EMS Software Interface, JVMF, MTS Support
PM-FBCB2	FBCB2/EMS Interface, JVMF, FBCB2 Support
PM-JCALS	2361 Standardization, Phase 2 TLDD, ETM-I, DPMCS, Automated Logbook
LOGSA/USAPA	2361/40051 STDS Update (PM-JCALS/AMCOM/CECOM/TACOM)
CASCOM LIS	GCSS-A Connectivity (ULLS/SAMS/SARRS)
DCD ORD	Implement BCT Maint Concept, Combat Maintainer
PEO-AVIATION	Analysis & Assimilation (Ground/Aviation Common Solution)
FCS	Analysis & Assimilation (Objective Force)



# Brigade Combat Team



## \*Information Dominance

### COMBAT POWER

**FBCB2**

**BATTLE COMMAND  
TELEMETRY**

POSITION  
VELOCITY  
VECTOR

**HEALTH  
STATUS**

**RED**

**YELLOW**

**GREEN**

**EMBEDDED  
EMS**



**EMBEDDED  
DIAGNOSTICS**

**COMMANDER'S CRITICAL  
INFORMATION REQUIREMENTS**

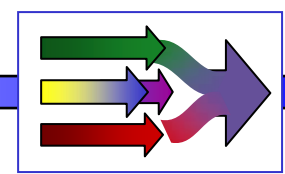
**BATTLEFIELD  
MONITOR ON  
THE MOVE  
PLATFORM/CREW  
HEALTH STATUS**

FUEL  
AMMO  
OIL/WATER TEMP  
CURRENT  
OHMS  
VOLTAGE  
PRESSURE  
FUEL/AIR MIX  
FIRE CONTROL  
GUN TUBE TEMP

**MTS**

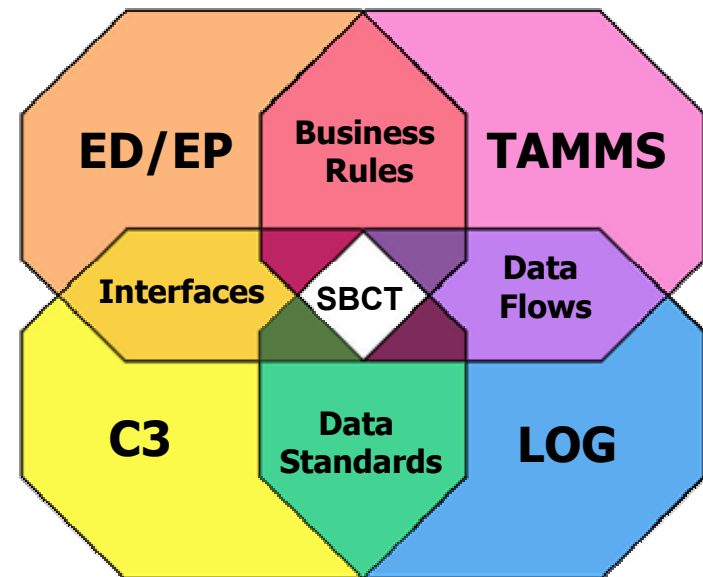
**BIOMETRICS**

**FUTURE**



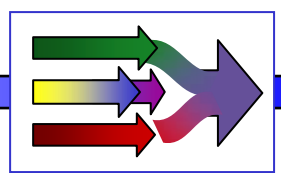
## Project Goals & Objectives

- Synchronize SBCT Doctrinal Concepts with Independent Development Efforts
- Influence STRYKER Block Improvement
- Integrate SBCT ED / EP Disciplines
- Validate SBCT CCS Doctrine
- Demonstrate Proof of Concept for Bi-Directional Real Time Battlefield Communication for Vehicle Health Management



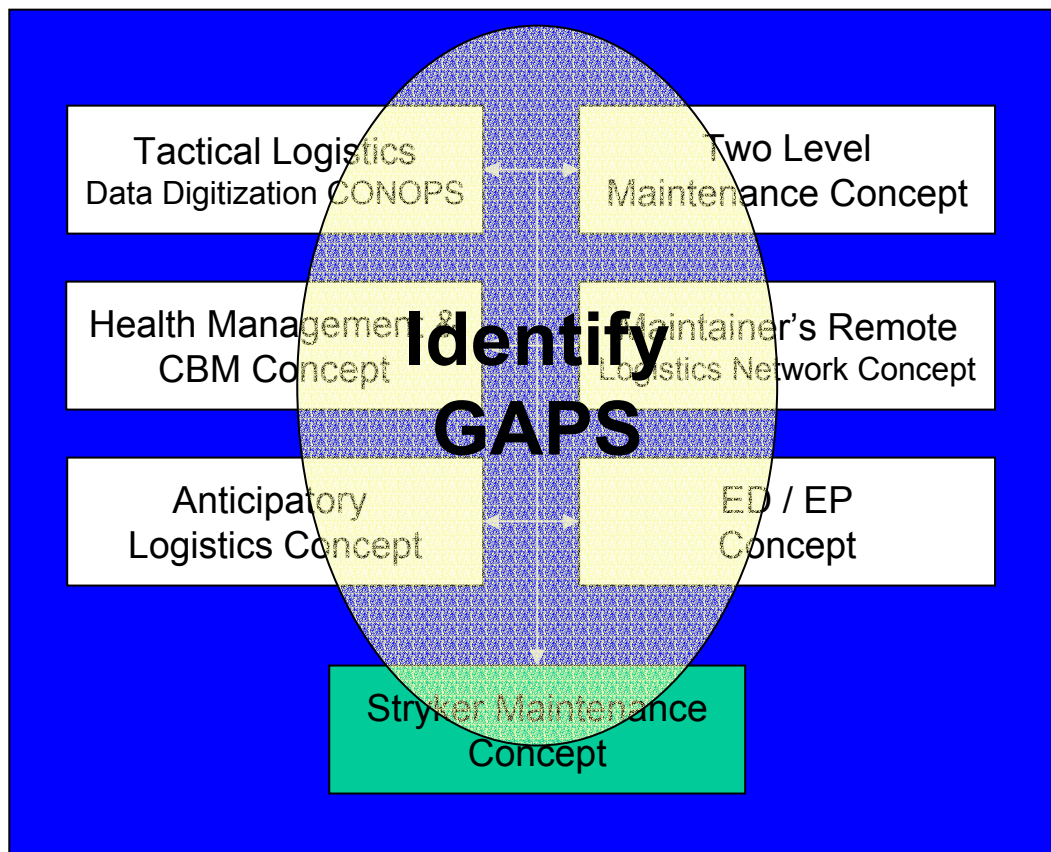


# Synchronize SBCT Doctrinal Concepts

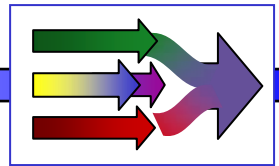


- Address & Synchronize these Concepts & Requirements to Produce:  
SBCT Synchronized Support Concept

SBCT Demo  
Project  
Will Cut Across  
Many Army  
Activities &  
Disciplines

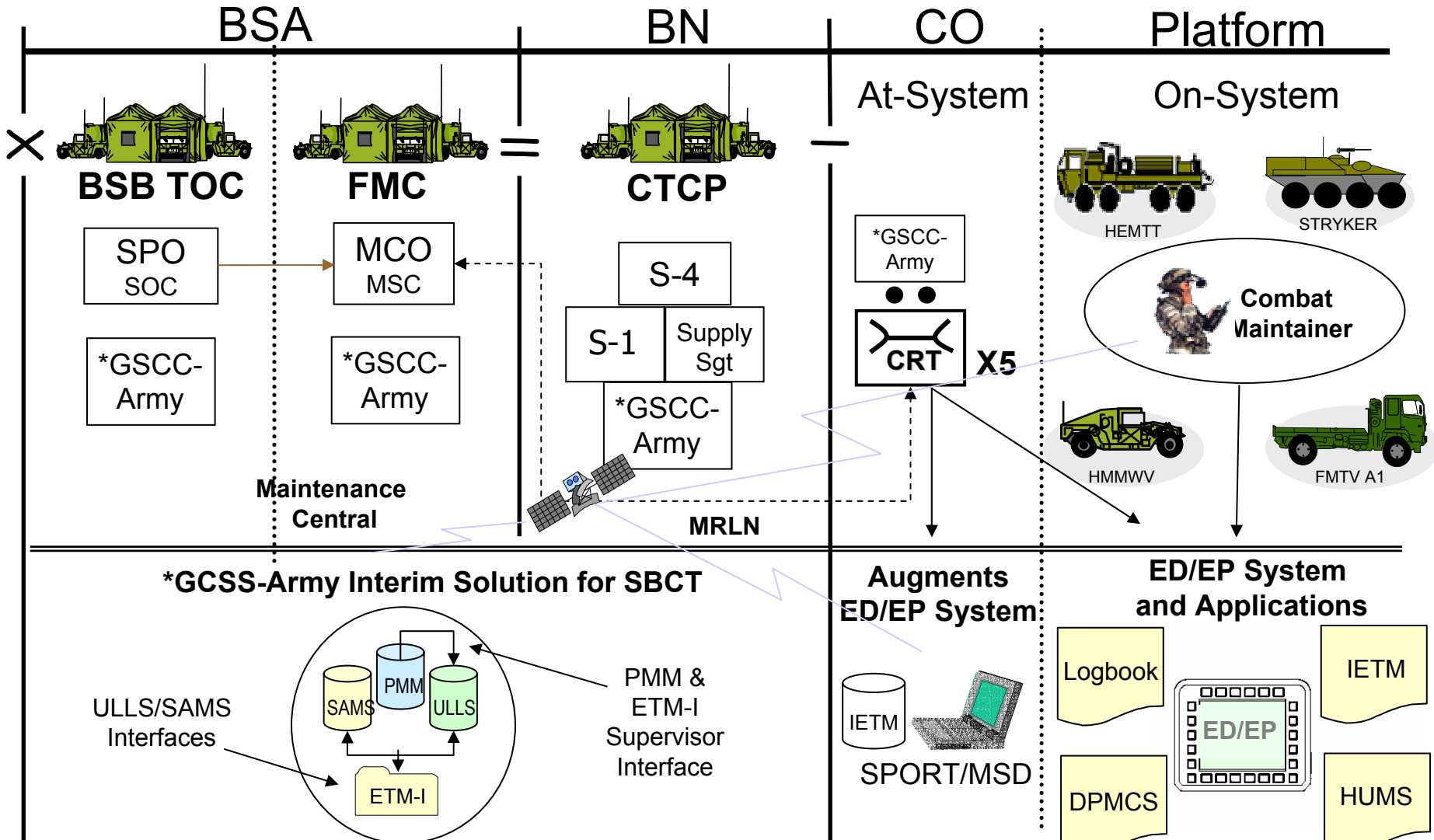


In the  
development of  
New Business  
Rules to  
Support the  
SBCT

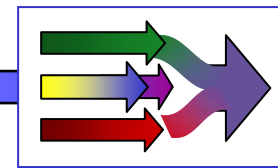


# SBCT Functional Areas & Capabilities

## "Multiple Concepts Synchronized with SBCT Doctrine"



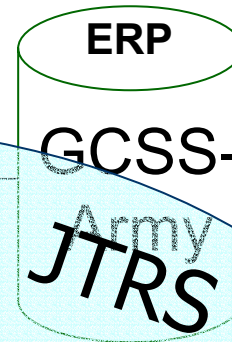
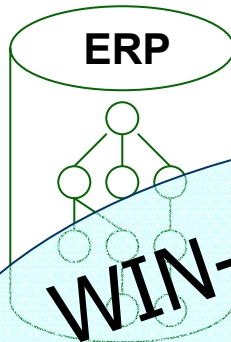
**Sustaining The Transforming Army**



# The Bigger Picture

## Design & Influence the Future Operational Architecture

NATIONAL



MRLN  
Reach Back  
Capability

Building the Foundation of the Future Now

Bulk  
Data

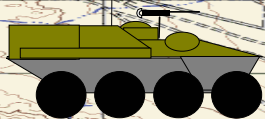
FIELD

FCS

JTAV

GCSS-Army

MSE



Platform ED/EP  
Level



Combat Maintainer

BN SPT OPS



BSB

FORT IRVING