

Net Centric Operations Logistics – FCS

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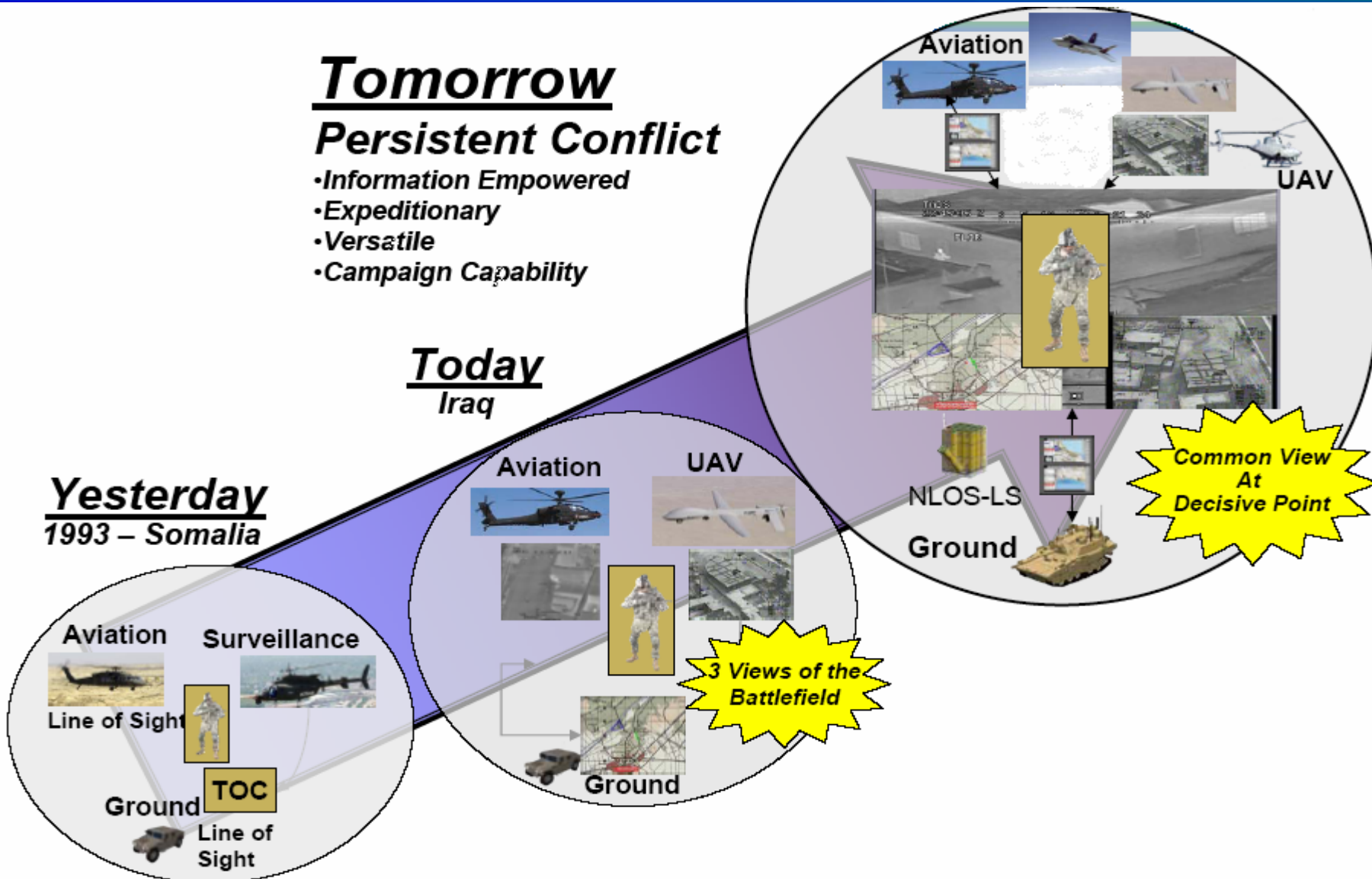
Future Combat Systems

Tomorrow Persistent Conflict

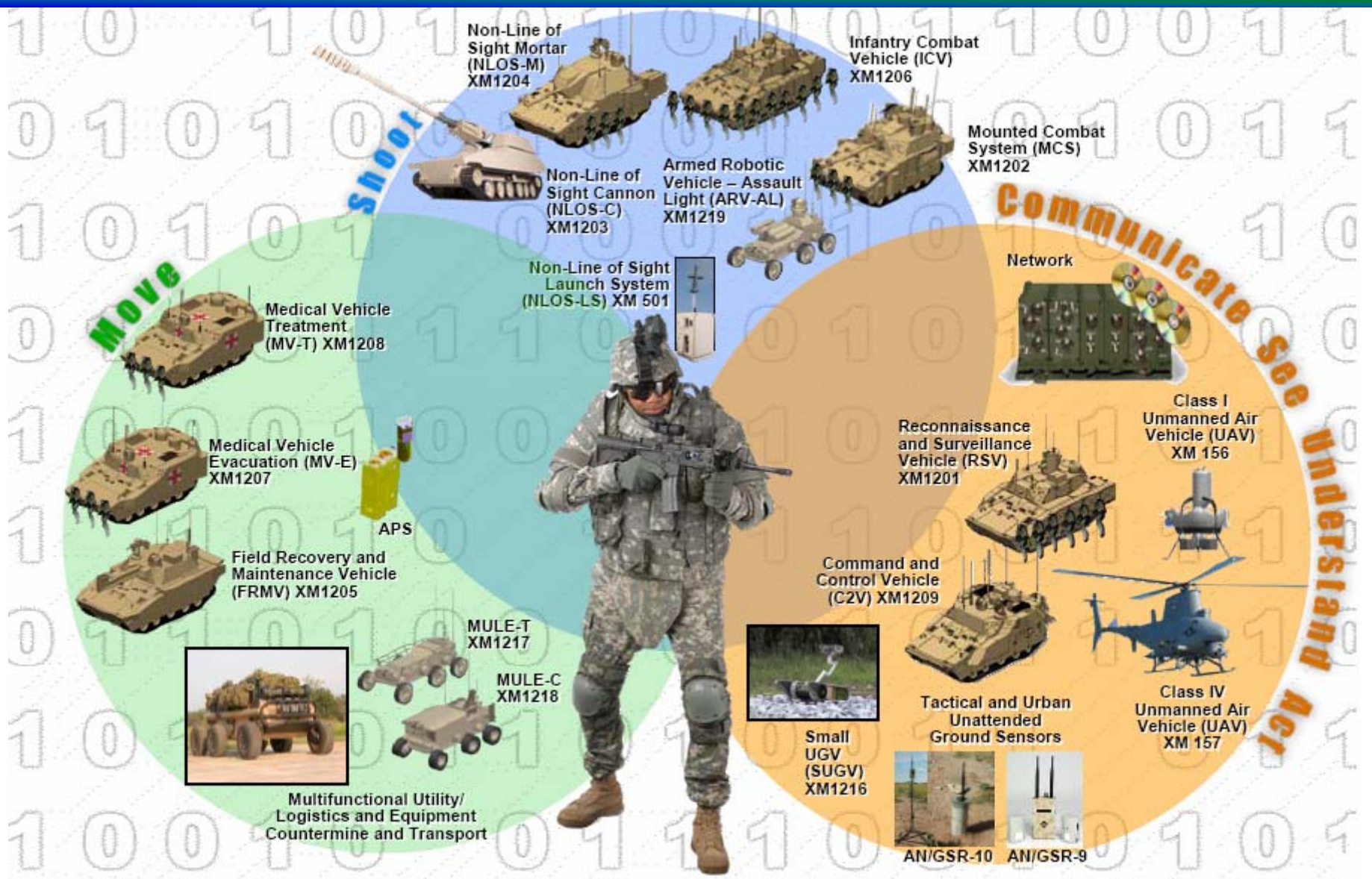
- Information Empowered
- Expeditionary
- Versatile
- Campaign Capability

Today Iraq

Yesterday 1993 – Somalia



FCS Brigade Combat Team



FCS Net Centric Operation Logistics

- **Plan, synchronize, monitor and execute sustainment operations**
 - Materiel Management
 - **Monitor/Control on-hand stocks**
 - **Ensure quality control**
 - **Determine Requirements**
 - **Local purchase**
 - **Retrograde**
 - Distribution Management
 - **Physical Distribution**
 - Field Level Maintenance
 - **Diagnostics, Prognostics**
- **Track Fleet Readiness**
 - Operational Availability

FCS Networked Supportability

- **Logistics Concept**

- Network Enabled
- Performance Based (PBL)
- Distribution Based
- Common Operating Picture
- Anticipatory / Predictive / Reduced Footprint

- **Maintenance**

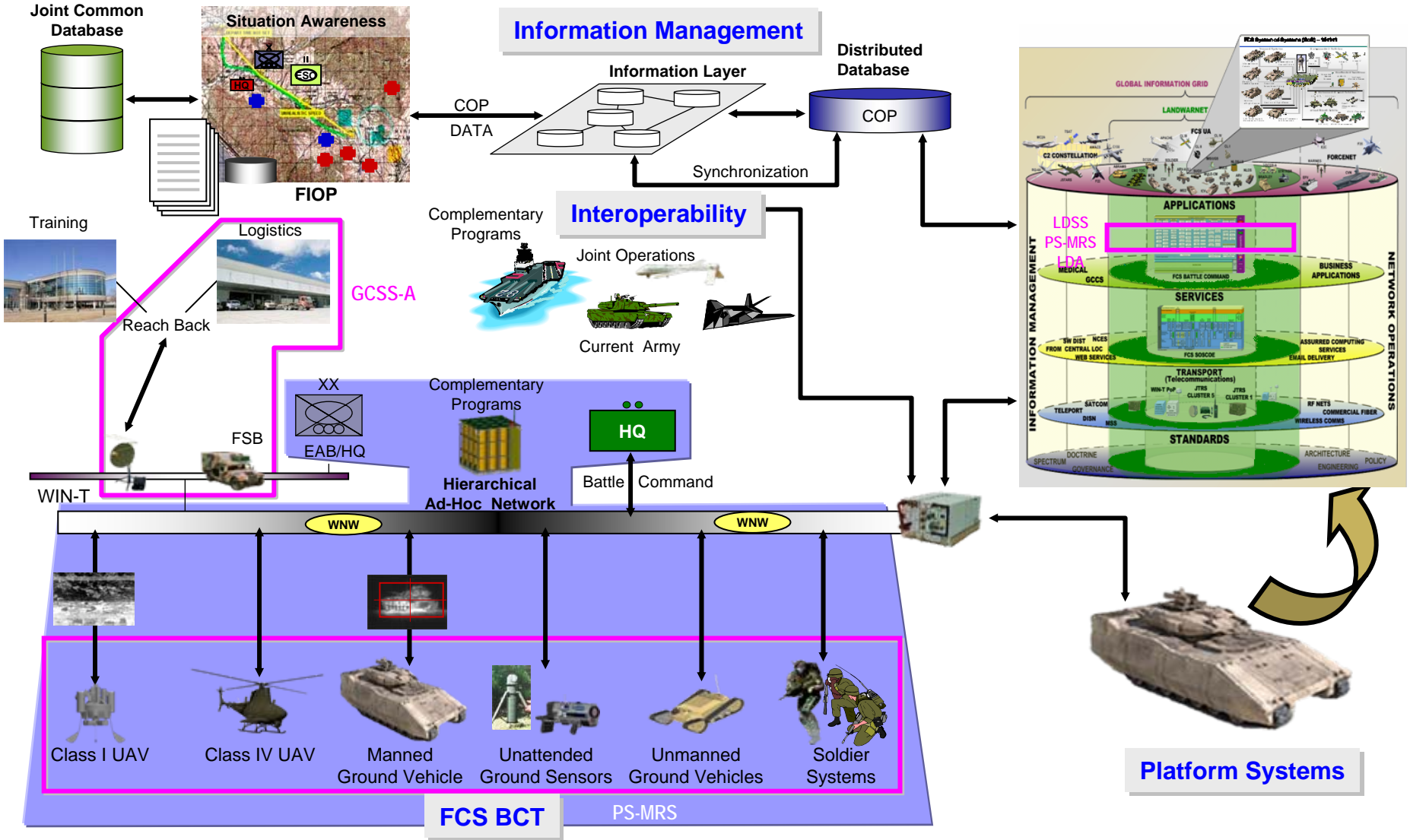
- Substantially Increased Reliability and Availability
- Maximum Commonality of Components
- Common Electrical Connectors
- Prognostic / Diagnostic Sensors Integral to Platforms and Soldiers
- Immediate Access to Remove / Replace Modular Components
- Interactive Electronic Technical Manuals Embedded on Platforms



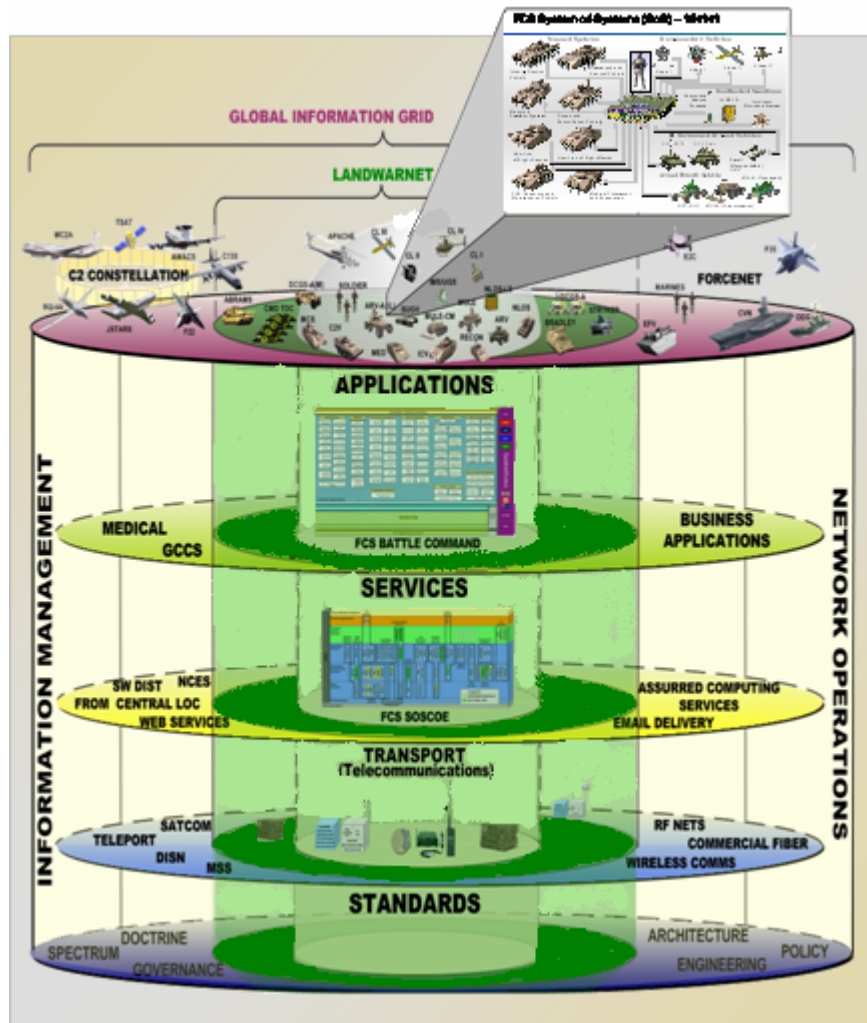
FCS Supportability Objectives

- **Increase Operational Availability (Ao)**
 - Superior reliability and maintainability
 - **95% Ao**
 - **80% of field maint by crew w/Max Time to Repair = 30 min (pit stop engineering)**
 - Embedded mission readiness system
 - **Network centric sustainment, battle command integration**
 - **PS-MRS, LDSS, LDMS, interface with EAB (GCSS-A)**
 - **Total asset visibility of Class IX Repair parts and repair resources**
- **Reduce Logistics Footprint**
 - Component commonality
 - 10 tools at platform, 20 tools at CRT
 - Embedded diagnostics/prognostics/IETMs
 - Total asset visibility within BCT and into EAB
- **Reduce Life Cycle Costs (Areas of significant O&S savings)**
 - Personnel - 10% reduction compared to heavy brigade task force
 - Reliability - improvement compared to current Platforms
 - Commonality - reduce spares requirements approx 50% over Current Force
 - Embedded training - reduces O&S costs per BCT
 - Integrated Supply Chain Management reduces required spares

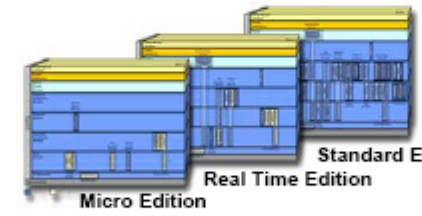
The Integrated - Interoperable FCS BCT Network Centric Operation Logistics



FCS Net Centric Architecture



Battle Command



SOSCOE

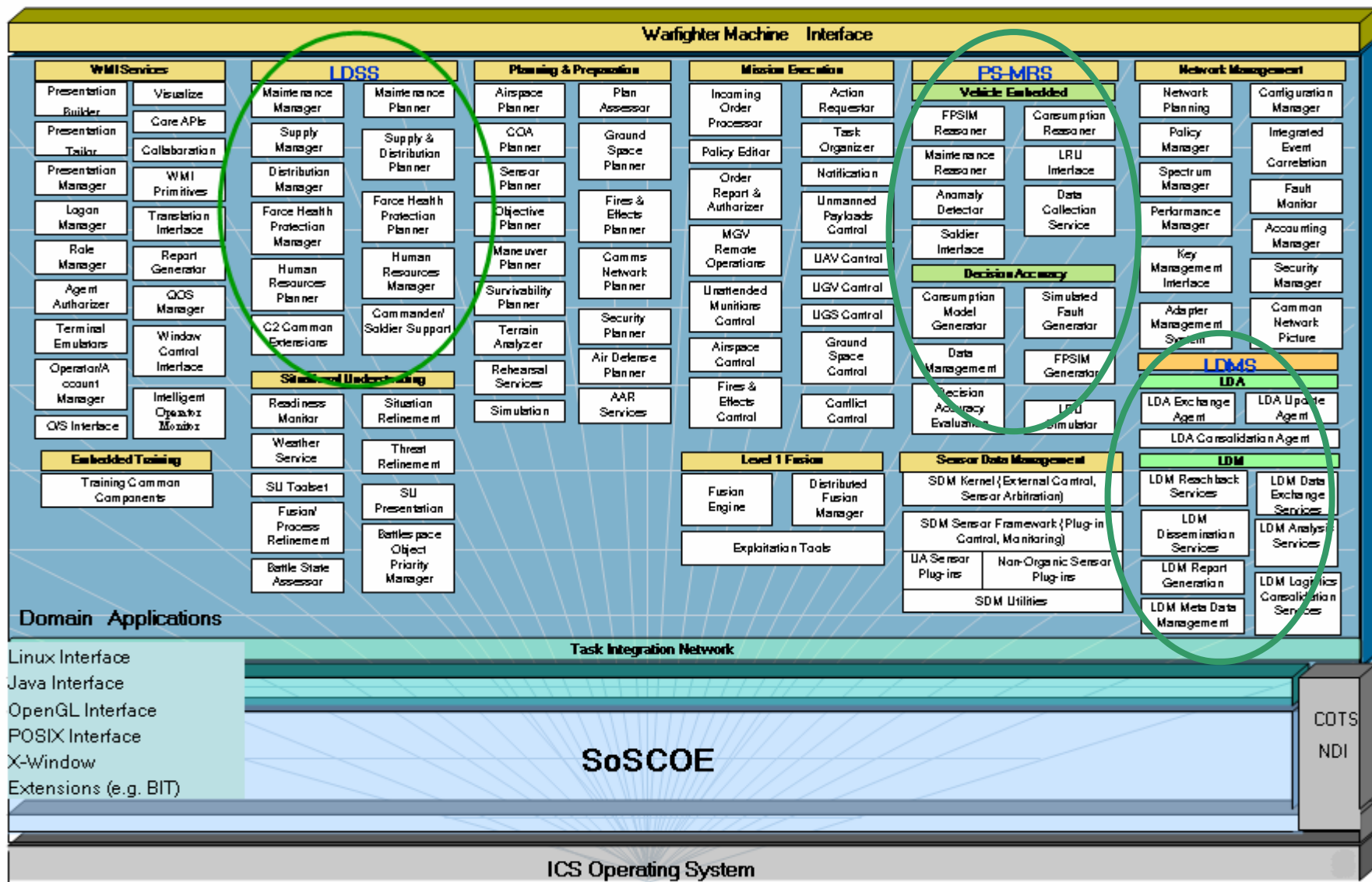


JTRS



WIN-T

FCS Battle Command Brick



FCS Logistics Products Deployment

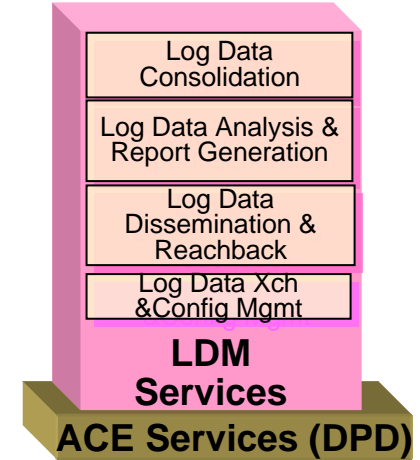
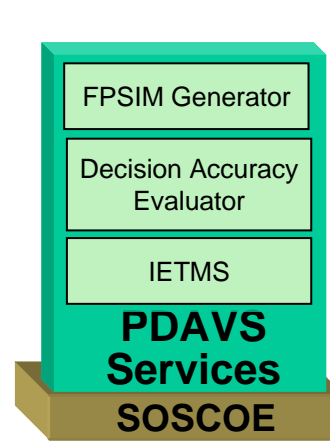
- GCSS-A
- DIMHRS
- MC4
- Other



- Echelon Level Roll Up
- Maintenance & Logistics Status to Higher Echelon
- Logistics Planning & Sustainment
- Information to FCS BCT



Upper Echelon/Outside Elements

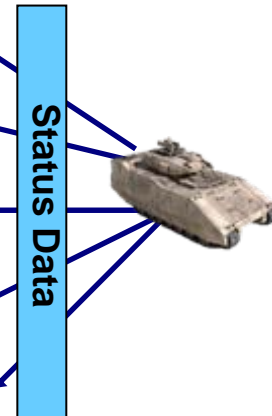
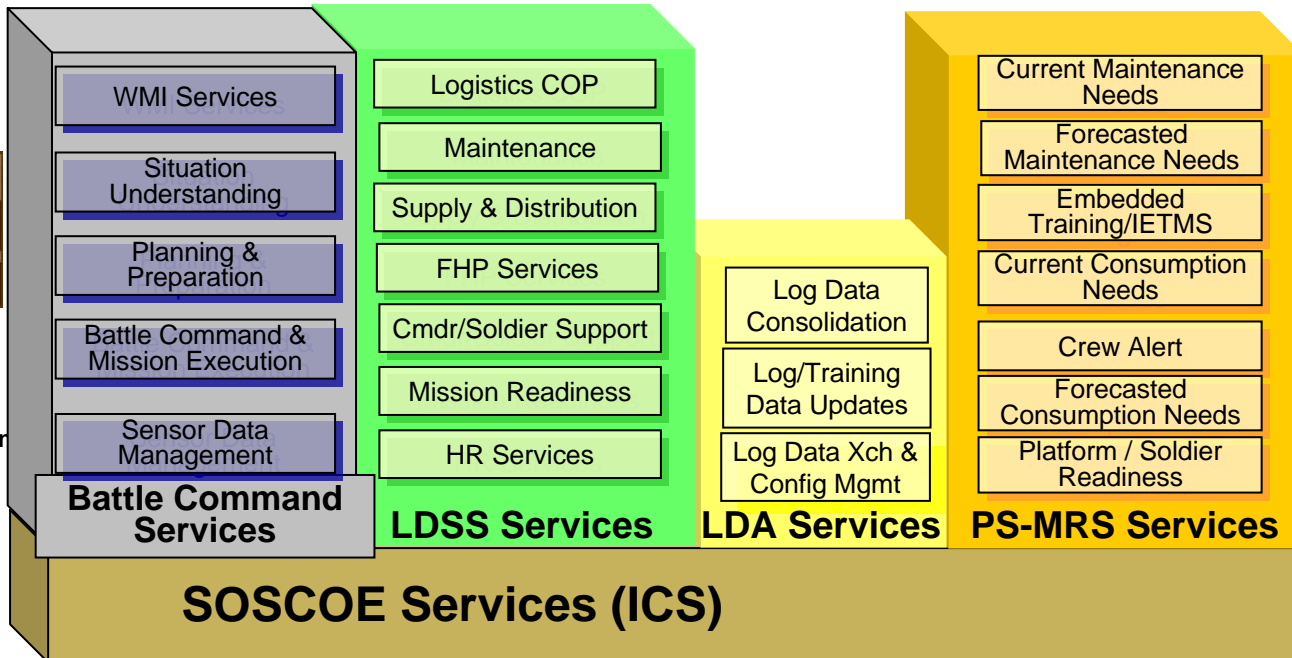


FCS Comm. Network

FCS BCT Elements



- Echelon Level Readiness
- Logistics Planning/Collaboration
- Log Execution Monitoring



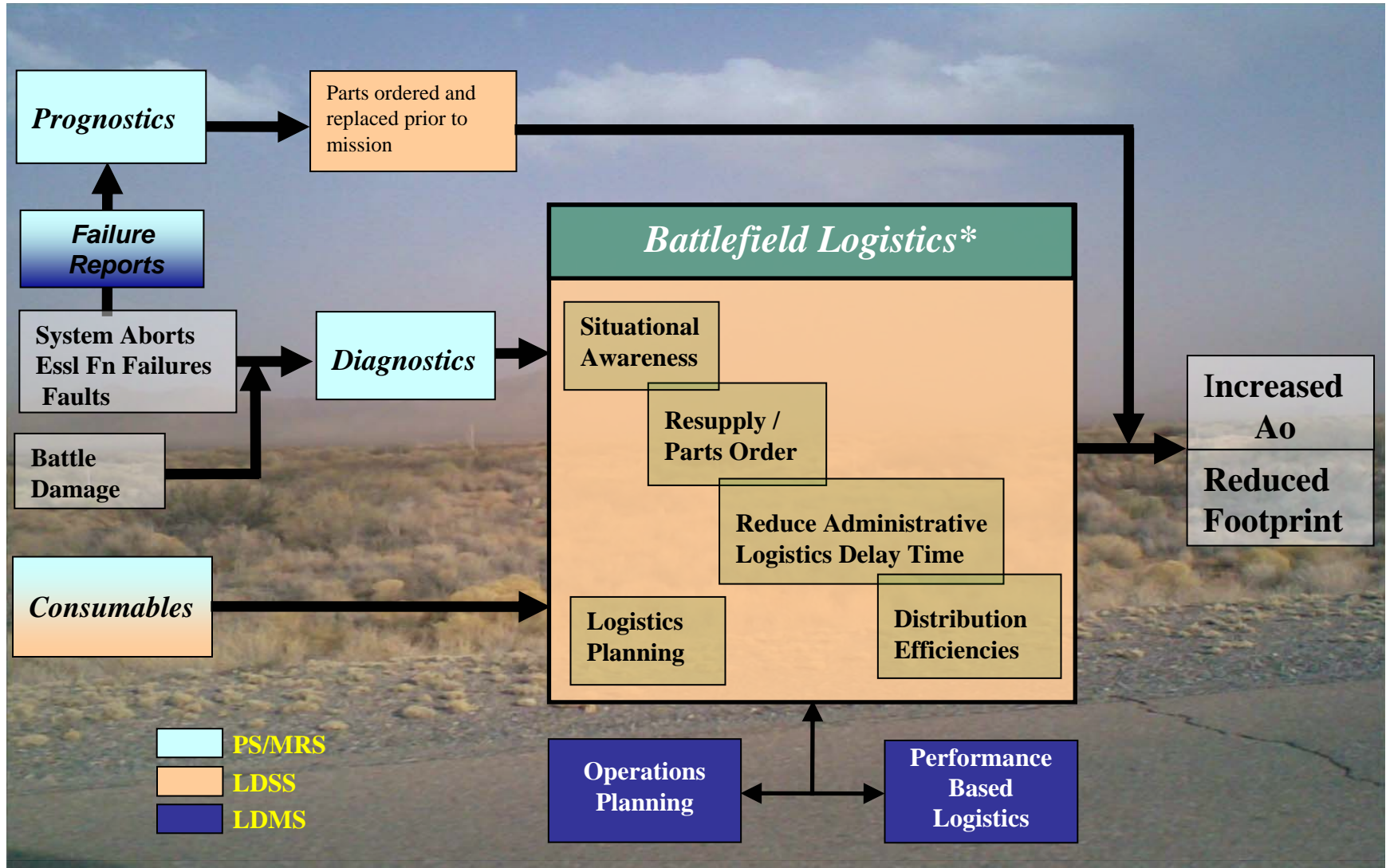
FCS Logistics Software Applications



- **Platform Soldier Mission Readiness System (PSMRS)** is a single software application that provides condition based diagnostics, prognostics, and readiness status for all FCS Systems.
- **Logistics Decision Support Services (LDSS)** provides services to plan and monitor sustainment activities as well as to aggregate and report readiness and a logistics common operating picture via the FCS Battle Command network.
- **Logistics Data Management Services (LDMS)** creates a software portal used by logisticians/supply teams to access and manage FCS logistics data (enabling Performance Based Logistics)

Embedded Logistics from Three Complementary Components

FCS Logistics Products on the Battlefield



PS-MRS – Objectives

- Provide vehicle level functionality to enable the FCS sustainment vision
- Integrate logistics into the network centric battlefield model
 - Functional availability
 - Physical availability
- Enable 2 level maintenance concept
- Enable the “Crew Chief – Maintainer” concept
- Provide a uniform sustainment view of all FCS Platforms
- Provide for the continuous improvement of Diagnostic and Prognostic Algorithms at all levels

**Sustainment Incorporated as a Integral Function
Not added as an Afterthought**

Primary User of Vehicle Embedded PS-MRS is the Operator/Crew Chief

LDSS Objectives

- **Provide real-time logistics planning and management for the FCS BCT:**
 - Intelligent planning tools for automated logistics planning
 - Plan monitoring with embedded plan course changes
- **Real-time in-transit visibility of supplies intra-FCS BCT**
- **Logistics Common Operating Picture (COP) generated in real-time and at greater depth and precision through direct interfaces with manned and unmanned vehicles (PS-MRS)**
 - Comprehensive and accurate logistics picture through connectivity and data sharing with Single Army Logistics Enterprise/GCSS-A

LDSS Primary Users are the Commanders and Sustainment Officers

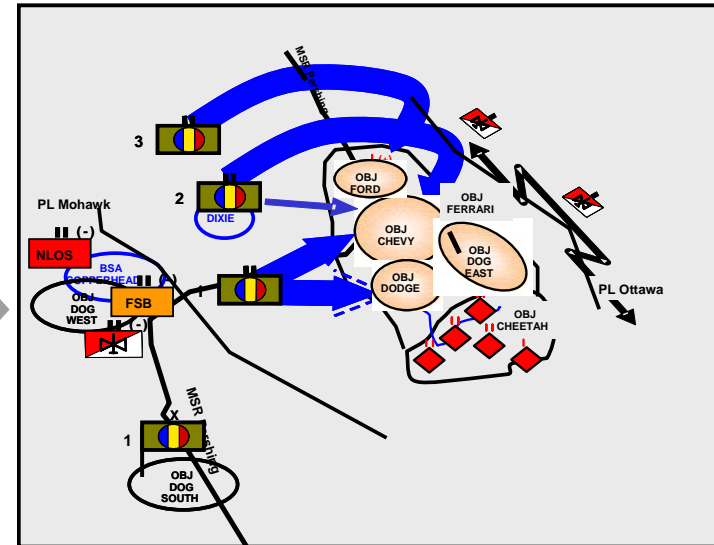
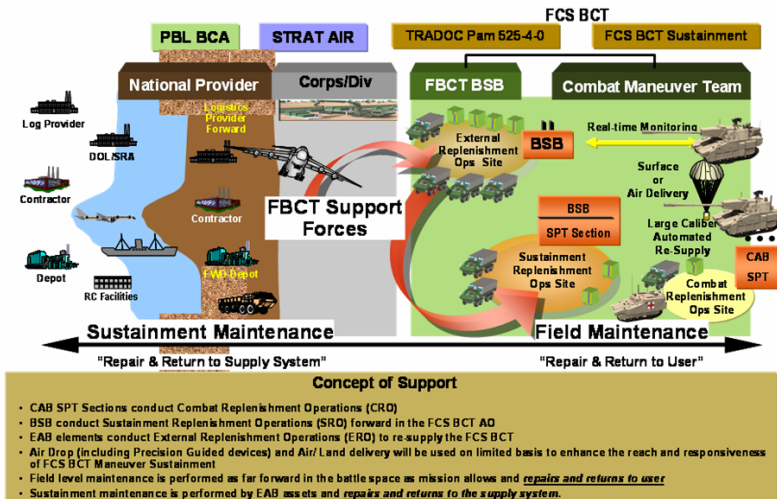
LDMS Objectives

- **Logistics Data Manager (LDM)**
 - **Configuration Management (CM):** tracks as-designed, as-delivered and as-maintained data. .
 - **Logistics Data Analysis:** Business intelligence to optimize availability and lifecycle costs.
 - **Forecasting and Planning:** Analytic tools for FCS platform sustainment and supportability.
 - **Status and Location of National Level Assets:** FCS Spares and Repair Parts from DoD, Army and OTP Systems
 - **Report Generation:** Flexible and intuitive standard reports
- **Logistics Data Agent (LDA)**
 - Autonomous component of the Battle Command Suite of Software.
 - Collect and Disseminate information from LDSS and PS-MRS

Primary LDMS Users are the Product Support Integrators, OTP Systems Engineers, Sustainment Engineers and Logistics Engineers

Supportability End State

- Increase Operational Availability
- Reduce Demand for Maintenance and Supply
- Significantly Reduce Logistics Footprint
- Integrated Network Logistics
- Reduce Life Cycle Costs



Maximize available combat power

Acronyms

- ACE Advance Collaboration Environment
- Ao Operational Availability
- BCT Brigade Combat Team
- CRT Combat Repair Team
- EAB Echelon Above Brigade
- GCSS-A Global Command and Control System-Army
- ICS Integrated Computing System
- IETM Interactive Electronic Technical Manuals
- LDMS Logistics Data Management Service
- LDSS Logistics Decision Support System
- O&S Operations and Support
- OTP One Team Partner
- PBL Performance Based Logistics
- PS-MRS Platform Soldier - Mission Rediness System
- SoSCOE System of System Comon Operating Environment