Network Modernization and Data Centricity to Enable the Army of 2030

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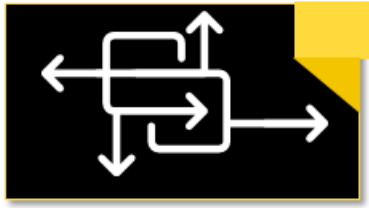
Objective State of the Future Network

Focus areas and key concepts driving network modernization within the signature modernization efforts

Transport Agnostic Networking

The future network needs to be resilient and ubiquitous to the user, supporting high throughput, low latency, multi-path transport capabilities



Data Centric Environment

Access to data at the point of need is a major priority for the operational force. Soldiers must be able to access data at the edge while sharing it with joint service and coalition partners. Data must be found, enriched, made available, and secured with common standards

Security Architecture

Adapting our architecture encryption to keep pace with future technology, including zero trust and multi-level security approaches

CEMA Dominance

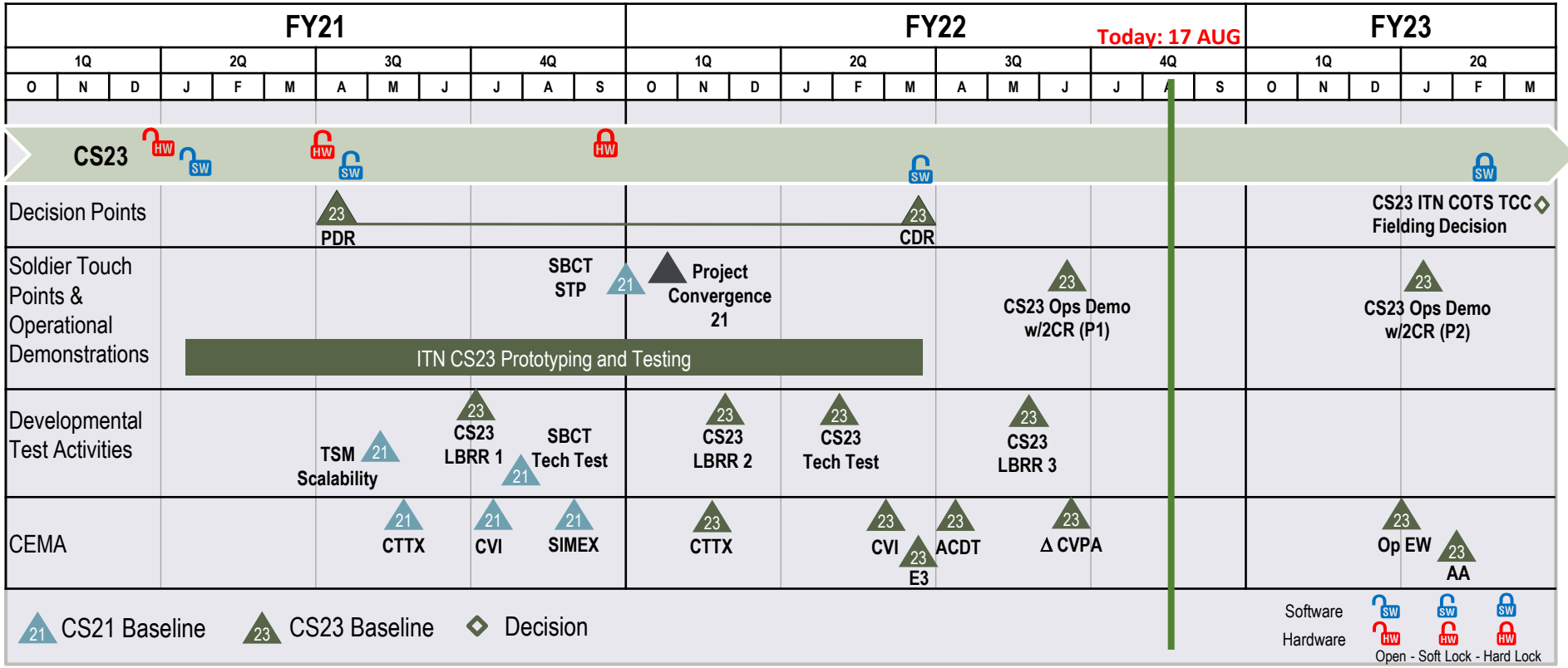
Cyber resiliency across network systems to rapidly identify and defend against vulnerabilities, protect from adversary EW/ISR, and deliver network-enabled cyber and EW effects

CS23 Roadmap

Preliminary Design Review (PDR)
- Approved Baseline of Component
- Systems Architecture
- Identified Requirements Issue/Risks
- Subsystem Design.
- Updated Product Definition
- Initial Affordability Assessment

Critical Design Review (CDR)
- Document the CS23 design, with fiscal and reality constraints, for CS23 Ops Demo fielding of CS23
- Finalize design decisions
- Identify residual risk and mitigation plans
- Process in place to maintain configuration control of CS23 fielded baselines

Operational Demonstrations
Culminating force on force system of system operational assessment.
- Designated unit(s) conducting force-on-force training exercise with available capability set and ITN equipment with the established network architecture.
- Influences the FY23 CS23 Fielding Decision

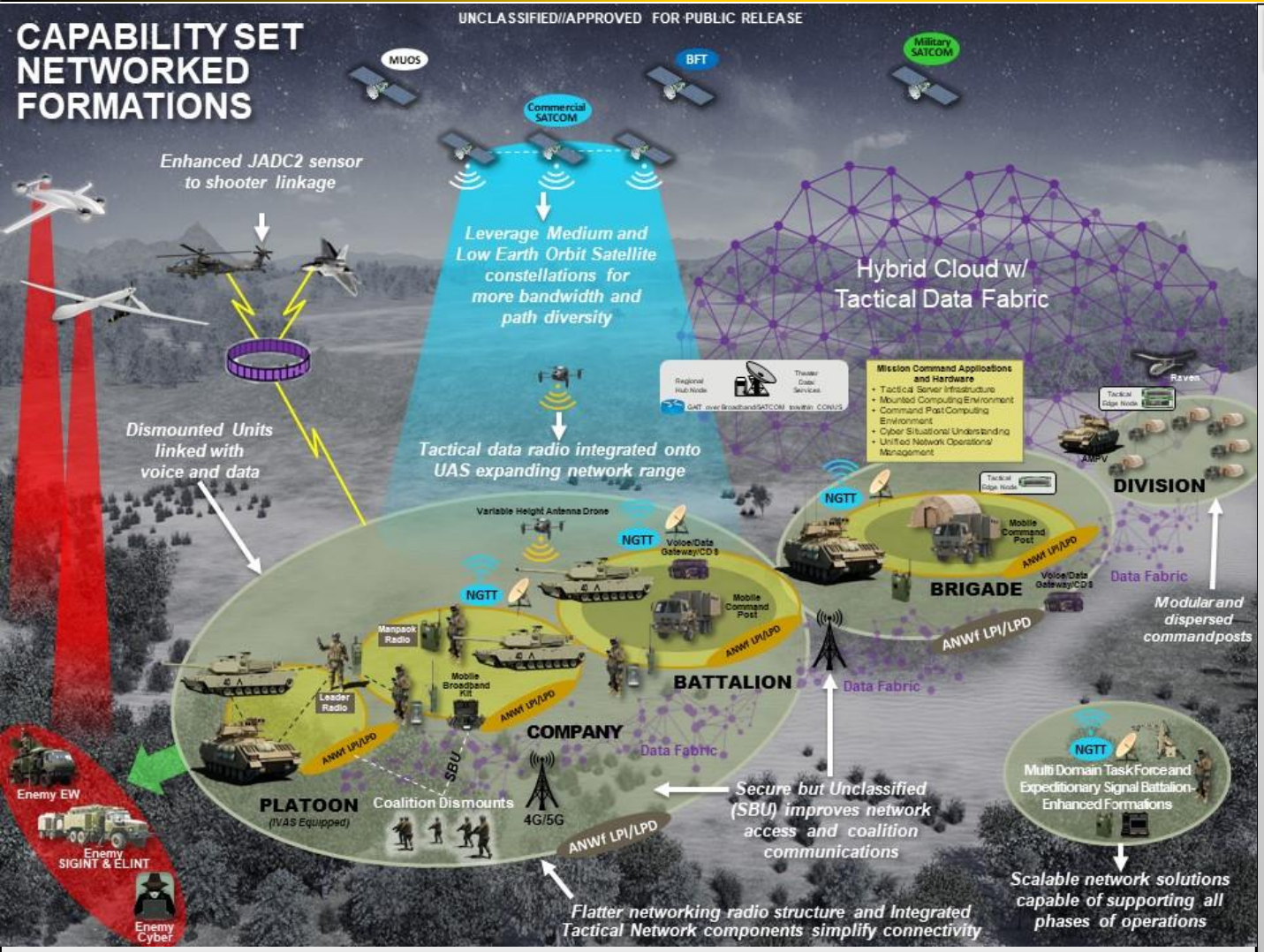


U.S. Army Network Capability in Europe

- **Units utilizing CS21 and ESB-E fielded equipment**
- **Importance of readiness training to maximize capability (V Corps)**
- **Mission Partner Environment (MPE) enabling USAREUR-AF to share data with NATO partners**
- **XVIII Corps demonstrating opportunities for more data-centric capability that leverages high throughput, low latency SATCOM and cloud**

CS21 and modernized network equipment is actively employed in EUCOM AOR and gaining valuable feedback to inform CS23, CS25 and beyond

CS25 Top New Capabilities



Evolving CS23 capabilities to increase automation and protection.

Top New CS25 Capabilities

- **Optimized maneuver formation/ DIV capabilities**
- **Automated PACE** Networks
- **Integration of Advanced Network Waveforms (ANWf)** across the formation
- **NETOPS tools fully integrated**
- **Automated Cyber Defense** against ML-enabled attacks
- **Distributed and disruptive EW** sensors, counter-ISR & non-kinetic effects
- **Continued convergence of Network and MC HW and SW integrating networks and WfF**
- **Improved hybrid tactical cloud and data fabric/mesh with increased protection** for robust and scalable applications
- **Enhanced planning capabilities** that enable rapid decision making at the speed of relevance
- **Expeditionary Mission Partner Environment (MPE)** enhanced with **Software-based Cross Domain Solutions**
- **CP Signature Mgt and Reduction**
- **CP Modularity and Dispersion (incl. Power)**

‘Big Bets’ to Advance Future Capability

CS foundation & open standards enable ‘big bets’ along with incremental improvements

Driving transitions from S&T and industry

- **Network Resiliency**
  - **AutoPACE / Bandwidth Virtualization / ModRF**
- **Unified Network Operations (UNO)**
  - **End-to-end ability to see, secure and maintain the network**
- **Securing Data**
  - **ICAM for distributed and federated access management**
- **CMOSS**
  - **Open standards to reduce SWaP while increasing flexibility and adaptability**
- **Data Fabric**
  - **Uniting multiple sources of data to enable S2S and tailorable operational picture**

Technical Exchange Meeting (TEM) 9

- **When:** December 7-8, 2022
- **Where:** Gaylord Convention Center and Resort, Nashville TN
- **Registration:**
  - Virtual attendance is not being offered at this time (subject to change)
  - In person: https://armytem9inperson.eventbrite.com (closes 18 NOV 22)

- **Purpose:** As with previous odd number TEMs, TEM 9 will be structured to inform industry's research and development. For more information on TEMs, please refer to the Joint Communications Marketplace: https://jtnc.experience.crmforce.mil/TEMIndustry/s/

The TEM 9 discussion will be focused on both Pacific and European theater of operations, including warfighter perspectives, lessons learned and lessons applied for unified network and data centric modernization priorities and experimentation. Targeted technology breakout session topics may include network transport (including family of terminals approach), Unified Network Operations (UNO), CMOSS, waveform development, data/cloud, and modern security architecture. The Army will provide a recap of FY22 experimentation efforts, and highlight FY23 experimentation projections.