



Network CFT & Tactical Network Modernization

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Network CFT

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Network Cross Functional Team Mission & Purpose

Enabling Lethality and Improving Survivability Through Disciplined Innovation & Focused Integration

MISSION

The Network-CFT, in coordination with key stakeholders, will deliver the Army a network that enables our Army to Fight and Win and Dominate in a Multi-Domain environment by 2028.

VISION

We will **drive requirements** and **drive transitions** in order to deliver a Network that is expeditionary, mobile, hardened and intuitive that enables the lethality of our Warfighters to dominate in any environment, anytime and anywhere.



PRIORITIES

Meeting Army Senior Leader Priorities & Combatant Commander Requirements

- **People- Talent Management**
- **Process- Learning Organization; Improve Everyday**
- **Products- Professional, Timely, & Accurate**
- **PPBE- Align Resources to Deliver Capability**

Continuous Evolution & Refinement of Operational Requirements

Drive Requirements

Threat Informed

Market Research

Science & Technology

Experimentation & Demonstration

Test & Evaluation

Drive Transitions

"This is an iterative build to the end state. We never truly reach the end state; the end state is constant innovation" – GEN Murray

The N-CFT narrows assigned Army Capability gaps using Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities – Policy (DOTMLPF-P) enhancements to enable overmatch.

The N-CFT informs technology transitions, research and development, and user assessments, and then rapidly transitions operational requirements for procurement of material solutions by the Defense Acquisition Service.

The N-CFT integrates and synchronizes DevOps activities across the Army, tied to joint requirements, focused to improve speed, capability, and cost of material solutions to meet the Chief of Staff of the Army's (CSA's) First order principles, characteristics, and warfighting requirements.

The N-CFT will engage in expert analysis, focused experiments and technology demonstrations to inform requirements and will develop and refine capability documentation for procurement by the Defense Acquisition Service.





Army Network Modernization

Enabling Combined Joint All Domain Command & Control (CJADC2)



LOE 2: Common Operating Environment

Enclaves: Secure But Unclassified, Unclassified, Secret, S//REL-MPE, Top-Secret

LOE 4: Mobile & Survivable Command Posts

Hybrid Cloud

Tactical Cloud

Command Post Computing

Mounted Computing

Handheld Computing

IoT Sensors

Power & Integration

Formation Appropriate Platforms

2b

Data

Mission & Operational

Cloud Computing, Software/API Framework, Analytics & Artificial Intelligence

2c

Applications

Converged Warfighting Functions

Command & Control
Intel Fires
Movement & Maneuver
Sustainment
Protection

(Information & Decision Processing)

2a

Sensor Integration

PLATFORMS
Intelligence
Enterprise
Multi-Domain & Spectrum Sensing

2d

Effects Integration

PROJECT CONVERGENCE
Long Range Precision Fires
Integrated Air & Missile Defense
Air Launched Effects/Air-Ground Integration
Cyber/EW Effects

Joint All Domain Situational Awareness

Joint Fires

Joint Tactical Grid

LOE 3: Joint Interoperability & Coalition Accessibility

Enabling a Mission Partner Environment – Unified Action Partners

LOE 1: Army Tactical Grid: Integrated Tactical Network – Assured Network Transport in a Contested Environment

GATEWAY
MOJO/TRAX
CDS

RADIOS
HMS/COTS

EDGE NODES
Mesh Networks

TRANSPORT
Terrestrial
Aerial/Space

COMMERCIAL
LEO/MEO/GEO
4G LTE/5G

ENABLERS
Automated PACE
Cyber SU, EW,
Unified NetOps

AIR-TO GROUND
Link 16
HMS

NATIONAL
Intel Community
TENCAP

API - Driven Architecture





Capability Sets

Capability Set 21: Expeditionary & Intuitive

- * Smaller, lighter and faster communications systems
- * Reduced/simple cognitive burden on apps & devices
- * Diverse networking via MANET, LTE, with automated PACE capability
- * Intent/Content driven network security and network operations



Capability Set 23: Capacity & Resiliency

- * Commercial LEO/MEO with phased array antennas
- * Improved communications-on-the-move and omni-directional antennas
- * Software defined SATCOM modems and interference reduction (DSSS)
- * Hybrid Mission Command in commercial cloud providers
- * Anti-jam/resilient waveforms and protocols (layer 2/3)



Capability Set 25: Automated & Protected

- * Hybrid and hyperconverged cloud architecture
- * Deep Neural Network-based network operations automated network management and decision making
- * AI/ML based cyber converged with next-gen commercial and quantum-resistant encryption
- * 5G mmWave or massive MIMO low-latency transport



Capability Set 27: Multi-Domain Dominance

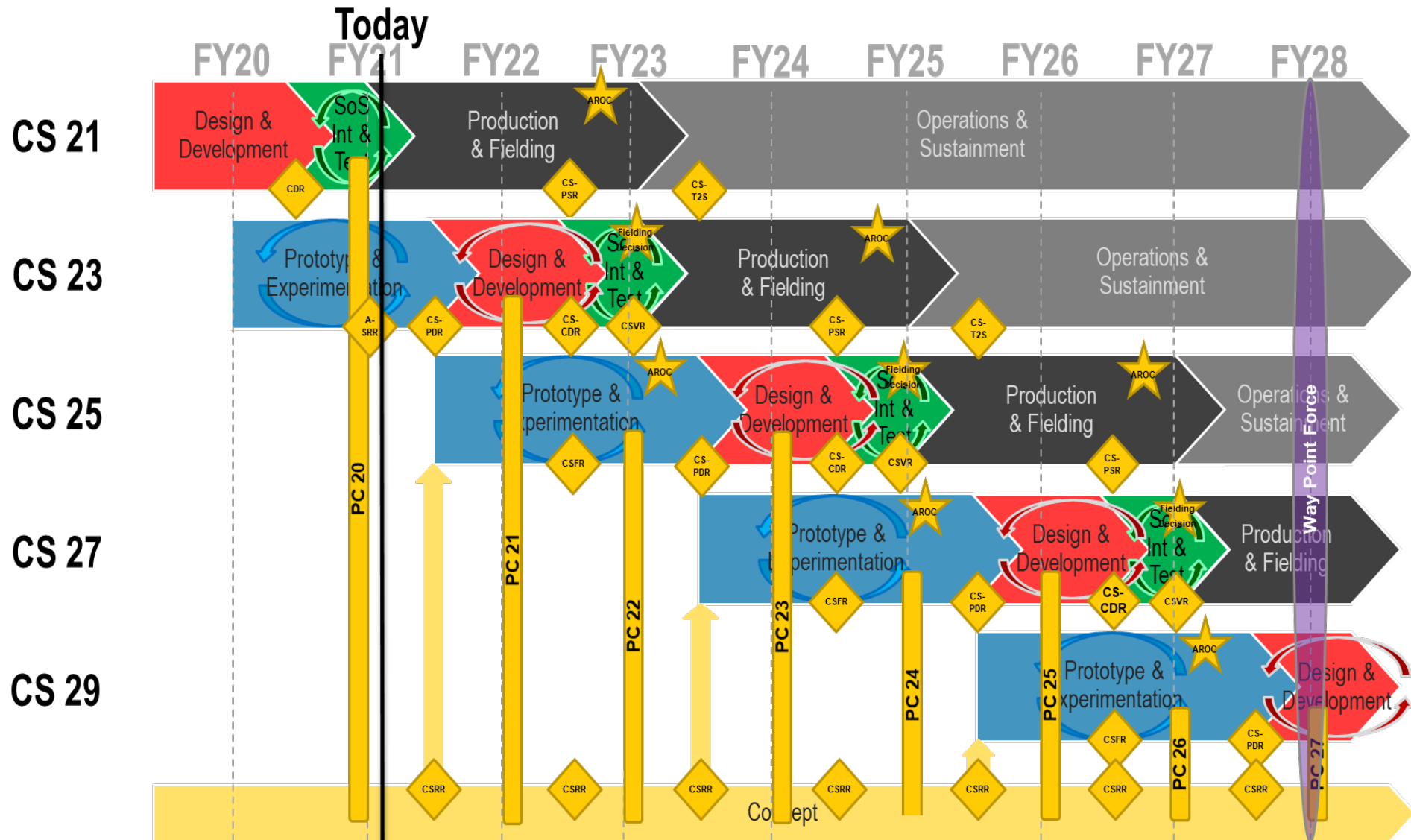
- * Hardened transmission security standards in 5G protocols
- * Cyber/EW/transport sense and adapt convergence
- * Converged user interface design with unified data fabric
- * Large-scale RF signature adaptation “needle in stack of needles”



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Concurrent Capability Sets





Questions