

Aligning Force Structure for NGC2

Decision dominance

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Next Generation Command and Control (NGC2) is quickly becoming a centerpiece of the Army's modernization strategy. With its promise of data-driven decision dominance, NGC2 is designed to integrate sensors, shooters, and decision-makers into a unified network that accelerates the speed of command.

Most of the focus to date has been on developing the NGC2 concept and figuring out the materiel side of the equation — software platforms, data fabrics, and resilient transport. However, modernization cannot be divorced from the human and organizational dimensions. Without parallel adjustments in force structure and human capital, NGC2 risks becoming a collection of exquisite tools without the organizational capacity and skill sets to employ them.

The Missing Conversation

During AFCEA TechNet 2025, NGC2 discussions weighted heavily toward the concept rather than the personnel who would operate, integrate, and sustain the materiel solutions. Suppose NGC2 is treated as a set of capabilities rather than as a formation-based transformation. In this case, the Army risks creating advanced but underutilized systems. This challenge will be magnified in the return of division signal battalions (DSB) if they are not designed to employ NGC2 at scale.

Without concurrent organizational design, NGC2 risks repeating a pattern of interoperability issues between warfighting functions and depriving commanders of the decision dominance promised by the concept. Signal formations, such as the DSBs and expeditionary signal battalions-enhanced (ESB-E), are equipped to bridge gaps between legacy systems and emerging requirements. However, both remain aligned to force structure paradigms built primarily for a transport-only mission. If NGC2 is to deliver on its promise to achieve decision dominance in large-scale combat operations (LSCO), organizational design must evolve alongside the materiel.

Lessons from Past Modernization

In the past, the Army effectively combined materiel modernization with organization redesign to maximize new capabilities. The fielding of striker brigade

combat teams, modular brigade combat teams, and ESB-Es exemplifies the transformative outcomes that occur when the Army aligns technology and programs with humans and doctrine in operational formations.

The introduction of the Stryker vehicle in the early 2000s was more than a platform upgrade; it was an entirely new formation, deliberately designed to maximize mobility, protection, and networked capabilities. This demonstrated that successful materiel fielding required a tailored organizational concept to achieve its intended effect. These transformations were not without growing pains, but they revealed a critical truth: when the Army combined materiel modernization with organizational redesign, formations became far more capable than when either change occurred in isolation.

In the mid-2000s, the Army reorganized divisions into modular brigade combat teams, timed alongside the fielding of digital battle command systems such as Force XXI Battle Command Brigade and Below, Joint Network Node, and Warfighter Information Network-Tactical. The modular design created self-contained, deployable brigades with organic signal, fires, and sustainment elements that could employ emerging command and control systems at scale. The transformation demonstrated that the materiel modernization of the network had to be accompanied by an organizational redesign to achieve operational agility.

More recently, the Army has demonstrated this principle through the ESB-E initiative. Beginning with the 50th ESB pilot conversion in 2018, units shed heavy, manpower-intensive legacy equipment in favor of lighter, modular Scalable Network Nodes and smaller satellite systems.

The conversion was not just a materiel upgrade; it included a deliberate restructure of battalion manning and organization. The result was a signal formation that could provide more points of presence with fewer Soldiers, meeting the Army's emerging requirements for mobility, scalability, and resilience. These examples show that the Army succeeded when it addressed modernization as both a materiel and a force structure problem. As a concept, NGC2 is no different. To achieve decision dominance, the Army must ensure organizational design and training evolve in tandem with the equipping of new systems.

DOTMLPF-P Perspective

Doctrinally, the Army must evolve beyond communications as an enabler and instead frame data as a maneuver element and decision support as a mission.

Under the current paradigm, where DSBs and ESB-Es are relied upon solely for transport, they may be underutilized in the NGC2 construct. To remain relevant, signal formations must expand beyond this legacy role and embrace the full spectrum of C2 integration – data fusion, spectrum management, and defensive cyber. Without this evolution, they risk creating gaps at precisely the echelon where maneuver commanders require resilient, data-driven decision support.

Equipping formations with NGC2 capabilities will require Soldiers to develop skills in data integration, automation, cyber defense, and decision support – competencies already present within the Signal Corps military occupational specialty structure. Personnel development should build on this adaptability by deliberately creating space in the force structure for Soldiers to serve as data and C2 integrators at echelon.

Only by aligning doctrine, organizations, training, and people with materiel can the Army fully realize the decision dominance that NGC2 promises. This alignment underscores the central point: force structure must evolve in step with modernization, or the Army risks fielding tools it cannot fully employ. Signal formations should serve as the lead integrator, ensuring that data and capabilities from all warfighting functions are fused and delivered to commanders.

The Army has already demonstrated through ESB-E conversions that organizational design can evolve in tandem with materiel modernization. Building on that model, we can begin to imagine a notional NGC2-enabled signal formation – one that combines modular structure with the right mix of technical and leadership skills. This approach will connect today’s doctrinal and organizational insights to tomorrow’s operational reality.

Designing the Formation

Talent and formation-based transformation – not technology alone – turn programs into true warfighting capabilities. A notional NGC2-enabled formation reflects each of these imperatives: spectrum managers provide resilience in the electromagnetic domain, autonomous and AI-enabled tools assist with data fusion, and highly trained Soldiers form the connective tissue that transforms systems into capabilities. These teams would be supported by a cadre of data and software specialists, building on the adaptability already present in the Signal Corps and expanding it through deliberate training in coding, artificial intelligence and machine learning (AI/ML)-enabled tools, and data visualization. To ensure resilience, the formation would also include electromagnetic spectrum managers and cyber defenders, enabling the unit to fight through jamming and intrusion attempts. Leaders, for their part, require education in data-centric mission

command, learning how to employ automated decision aids while maintaining the commander’s intent.

Under NGC2, DSBs and ESB-Es must evolve into modular, multi-functional teams capable of providing data integration, automation, and resilient C2 at echelon. If they remain tied to a transport-only paradigm, they risk becoming single-purpose formations at a time when the Army demands signal units that contribute directly to decision dominance. The future formation should remain expeditionary, deployable in tailored packages, and capable of scaling support as required – not just moving data but making it decisive.

Considerations for Leaders

Some may argue that the Army should wait until materiel solutions are fully developed before adjusting force structure. Yet history shows that doctrine, leader development, and training pipelines cannot be bolted on after the fact. During the modular BCT transition, for example, it took years to synchronize new C2 systems with the organizational design, leaving capability gaps in the interim. Others may suggest converting signal battalions into cyber units, but NGC2 demands resilient, mobile C2 architectures – a mission best-suited to adaptable Signal Corps formations, not the Cyber Corps. By keeping NGC2 nested within signal formations, the Army preserves a force designed to integrate transport, data, and defense at echelon – ensuring maneuver commanders receive the resilient C2 they need in contested environments.

Maneuver commanders will benefit from signal battalions’ higher-tiered expertise, particularly in contested training environments and LSCO, where distributed networks and resilient decision support cannot be maintained solely at the brigade level. Signal battalions are built to deliver transport and integration while adapting to new roles. Rather than creating dependency, DSBs and ESB-Es provide depth and redundancy, ensuring commanders can focus on employing combat power while knowing their C2 architecture is resilient. Waiting for materiel to mature risks fielding systems without Soldiers or organizations prepared to use them, and relying on legacy structures risks diluting NGC2 into incremental upgrades rather than the transformative change it is intended to be. By positioning the DSBs and ESB-Es as augmenting enablers – not competing headquarters or pseudo-cyber formations – the Army ensures NGC2 is both technically integrated and operationally relevant.

Call to Action

The Army must invest as much energy in the *who* and *how* of NGC2 as it does in the *what*. History shows that modernization succeeds when materiel and

force structure evolve together – as seen in Stryker brigades, modular BCTs, and the ESB-E conversions themselves. Viewed through a DOTMLPF-P lens, NGC2 requires not only new equipment but also changes in doctrine, organization, training, leadership, and personnel to make data a decisive element of warfare.

The DSBs and ESB-Es are the right echelon to carry this mission forward. They can serve as the Army’s experimental formations, providing higher-tiered expertise and modular support that bridges gaps across maneuver units while remaining agile and expeditionary. Building on their adaptability, the DSBs and ESB-Es can be reshaped into the notional NGC2-enabled formations that combine multi-functional

teams, cyber defense, spectrum management, and data integration under leaders trained in data-centric mission command.

Senior leaders should recognize that waiting for materiel to settle risks repeating past mistakes, while assigning NGC2 wholesale to other formations risks diluting its purpose. By positioning the DSBs and ESB-Es as augmenting enablers, the Army ensures that NGC2 will be both technically integrated and operationally relevant. NGC2 promises to transform command and control. But its success will hinge not only on technology, but on the people and organizations designed to employ it. The time to align force structure is now – before materiel outpaces the Army’s ability to use it.



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