Building the Low-Profile Logistics MESH Network

Rethinking Contested Logistics for a Trans-Regional Fight

amentum

The next major conflict is unlikely to remain confined to a single theater.

Imagine an Indo-Pacific crisis rapidly expanding into simultaneous operations across multiple geographic combatant command areas of responsibility. Strategic airlift is redirected to reinforce Europe; maritime forces surge toward the Western Pacific. Tanker capacity becomes a globally managed resource. Commercial shipping reroutes around contested maritime corridors. Long-range precision fires, cyber-attacks, and economic coercion degrade critical logistics infrastructure. Allied nations compete for access to the same constrained global supply chains.

Logistics no longer represents a theater-specific challenge; it becomes a global competition for sustainment capacity.

Success will depend less upon the ability to move supplies than upon the ability to continuously reconfigure a globally integrated logistics network across combatant commands while preserving operational tempo inside contested regions. Traditional hub-and-spoke logistics – optimized for efficiency during peacetime competition – become increasingly vulnerable.

Future operational advantage will belong to organizations capable of dynamically integrating military logistics, allied infrastructure, and commercial capabilities into a single adaptive sustainment network.

That is why Amentum developed its Low-Profile Logistics (LPL) methodology and established its Hawaii-based Center for Contested Logistics.

A Changed Sustainment Challenge

For more than 70 years, large distribution centers, secure ports, established transportation corridors, predictable force flow, and uncontested strategic lift enabled U.S. combat power to be generated faster than any potential adversary.

Those assumptions no longer hold.

The requirement is no longer to simply deliver supplies and services efficiently. It is to sustain a resilient, distributed, and adaptive logistics network capable of supporting U.S. forces despite contested conditions while strengthening partnerships, improving interoperability, and optimizing operational effectiveness.

Meeting those objectives requires more than improving today's logistics system, it necessitates replacing its underlying sustainment architecture.

From Hub-and-Spoke to LPL MESH Network

Amentum's LPL methodology replaces the traditional logistics paradigm with a distributed LPL MESH network transforming logistics from a linear supply chain into an adaptive operational network. While autonomous and unmanned systems will play an important part - primarily at the

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tactical level - in addressing the contested logistics challenge, Amentum's LPL methodology is technology-agnostic.

The LPL MESH network distributes sustainment across U.S. military facilities, allied infrastructure, and commercial logistics providers. This architecture continuously senses changing operational conditions, generates multiple logistics options, synchronizes distributed resources, and rapidly adapts as conditions evolve.

The framework is built upon four mutually reinforcing characteristics:

M – Mass to Mesh
Traditional logistics concentrates capability in a relatively small number of large facilities optimized for efficiency. The LPL MESH network distributes sustainment capability across numerous interconnected nodes preserving operational continuity when individual facilities, transportation routes, or communications are degraded. The LPL MESH network generates multiple sustainment pathways that preserve operational freedom of maneuver.
E – Expeditionary and Elastic
Operational demands change continuously. The LPL MESH network is scaled by activating modular logistics capabilities, distributed facilities, prepositioned resources, and rapidly configurable support packages aligned to mission requirements. Sustainment capacity expands, contracts, or relocates without requiring large permanent infrastructure investments.
S – Signature Managed
In contested environments, survivability depends upon reducing operational exposure. The LPL MESH network disperses operations, integrates commercial transportation networks, varies movement patterns, employs multimodal routing, and reduces predictable logistics activities. The objective is not simply concealment, but operational persistence through reduced predictability.
H – Hybridized Networks
No single organization possesses sufficient capacity to sustain globally distributed operations across multiple combatant commands. Therefore, Amentum's LPL MESH network integrates military logistics, partner-nation infrastructure, and commercial logistics capabilities into one synchronized operational enterprise that expands capacity, increases resilience, and generates multiple logistics courses of action.

Commercial Capacity is Operational Capacity

Rather than building entirely new networks during crisis, future operations can leverage existing commercial transportation systems, regional warehousing, engineering support, and supply chain visibility that already operate globally. These capabilities expand operational reach while increasing resiliency, flexibility, and responsiveness across distributed operations. Future deterrence will increasingly depend upon integrating this commercial capacity into operational planning before conflict begins.

Building Deterrence Before Conflict

The LPL MESH network's greatest strategic value is created during competition. Persistent engagement with allied nations, commercial providers, and regional logistics networks establishes access, strengthens interoperability, expands logistics options, and creates operational relationships long before crisis occurs. Distributed regional presence reduces response timelines, improves readiness, increases operational flexibility, and generates resilient logistics pathways that remain available when traditional infrastructure becomes contested.

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Sustainment becomes more than logistics, it becomes deterrence.

Adversaries must recognize that disrupting one port, one airfield, one supply route, or one logistics hub will no longer disrupt our ability to sustain operations.

The LPL MESH network simply adapts.

Tomorrow's operational advantage will belong to organizations capable of replacing centralized logistics with resilient sustainment networks that continuously integrate military capabilities, allied partnerships, and commercial capacity across multiple theaters simultaneously.

Amentum's Low-Profile Logistics MESH network provides that architecture.

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