TIGER-X

Next generation tactical routing solution

Elbit Systems™
C4I and Cyber

TIGER-X

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Tactical network-of-networks

Modern land-sea-air network-centric warfare relies heavily on secure reliable interconnectivity at all echelons and domains, with real-time information sharing and mission-critical data transmission across the battlespace.

An effective tactical communication system must integrate multiple bearer-networks, while adapting to varying bandwidth, capacity and dynamic network conditions. The range of possible networks and transmission technologies on the battlefield requires a sophisticated, comprehensive network that meets all communication challenges, providing interoperability between diverse mobile sub-networks and devices.

Any-to-any connectivity

TIGER-X ensures seamless end-to-end battlefield communication between all nodes in the tactical arena. It interconnects multiple and diverse bearer-networks from different vendors into a unified tactical network-of-networks, delivering connectivity, interoperability and enhanced network effectiveness.

Solution highlights

Dynamic routing

TIGER-X automatically adapts to changing conditions, including node connectivity fluctuations and network splits or merges, maintaining connectivity and ensuring optimal network performance. No need for manual re-configuration in response to mission or network changes.

Versatile application interfaces

A standard IPv4/IPv6 interface provides gateway-router services for IP applications, and an Application-Aware interface is used to enhance operational effectiveness by providing advanced Geocast and Multi-Unicast addressing, as well as specialized QoS capabilities for C4ISR network combat applications.

Robust bearer interface

Supports sending and receiving IPv4/IPv6 packets and tactical messages over a range of communication links, including diverse tactical radio networks (wideband and narrowband waveforms), HCLOS, HF, SATCOM, 4G/5G LTE, and enterprise IP WAN/LAN. Using advanced flow-control algorithms, TIGER-X dynamically adjusts transmission rates based on bearer capacity to ensure efficient utilization of network resources.

Quality of service (QoS)

A hybrid queuing system supports both strict priority and weighted fair queue schemes, ensuring critical traffic is prioritized while keeping fairness between traffic flows. Active queue management and traffic optimization mechanisms further enhance efficient network operation.

Network visibility

TIGER-X integrated network management system provides comprehensive tools for network monitoring and debriefing, granting real-time visibility over network operations.

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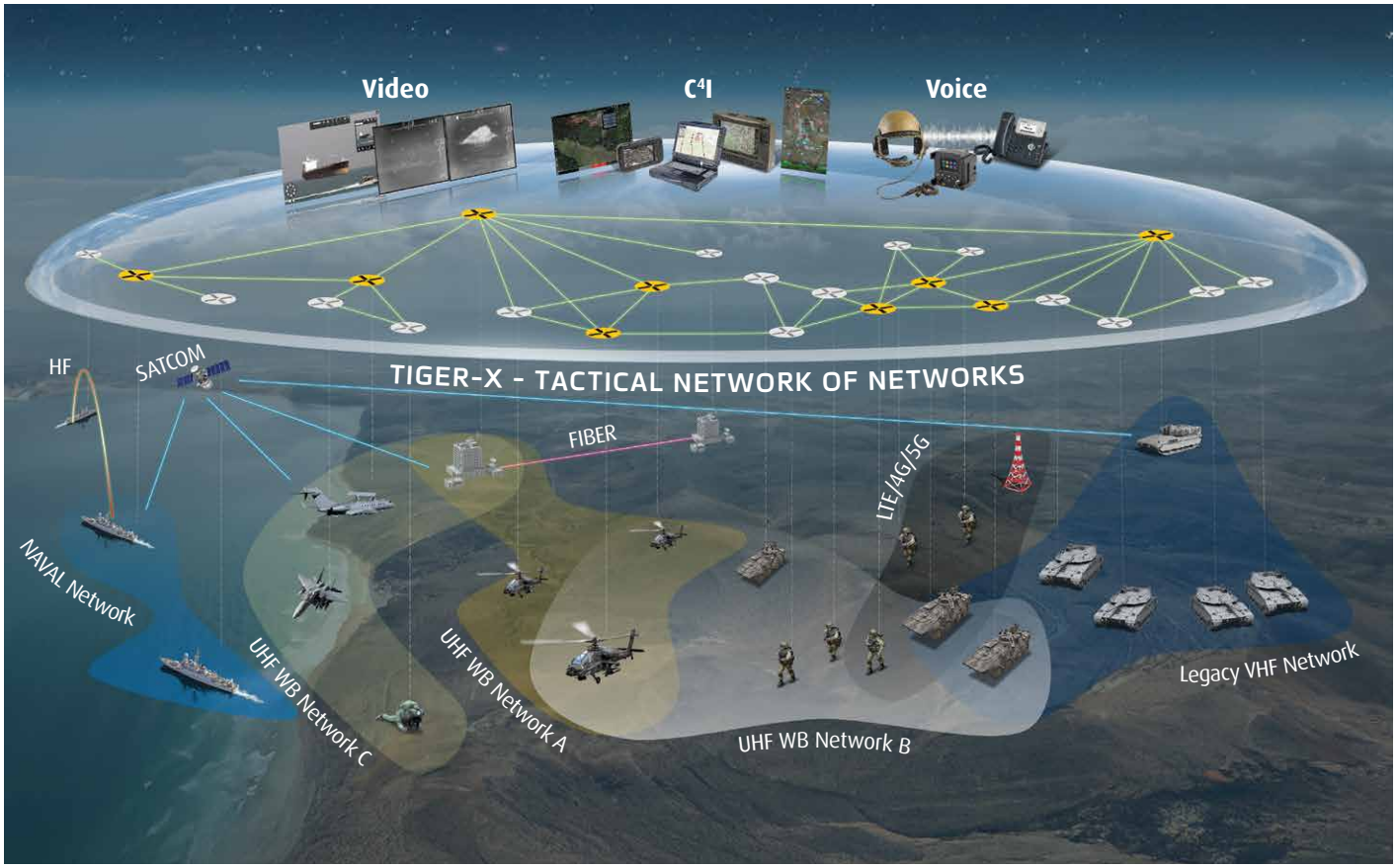

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