

ELBIT TIGER™

Tactical Intranet Geographic dissEmination in Real-Time



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Today's increasingly complex arenas require a real-time, comprehensive C4I system that unifies land, sea and air units by continuously delivering information to all echelons at every location. Elbit Systems' ELBIT TIGER™ is a state-of-the-art tactical communications system built on the company's in-depth knowledge of actual field conditions, accumulated during years of intensive battlefield experience. Harnessing the entire infrastructure and integrating all communications media – including legacy narrow-band channels – ELBIT TIGER™ creates an end-to-end, unified, flexible, and continuously learning Intranet. Handling routing, messaging and dissemination, this powerful information grid brings all relevant data to the battlefield instantly, from the command level to the single platform. ELBIT TIGER™ also provides optimum message transfer flow and guaranteed message delivery for swift and accurate tactical decisions.

Modular and scalable, ELBIT TIGER™'s architecture allows both standard (using IP) and tactical applications (using API) to co-exist over the same infrastructure, significantly reducing development time and cost. Media interfaces, layers or components can be upgraded or replaced according to customer need without affecting the overall system. In addition, ELBIT TIGER™ can be easily integrated with the customers' existing equipment and adapted to their unique security requirements.

Meeting the tactical needs of network-centered warfare

With a dynamic system topology, ELBIT TIGER™ enables full connectivity between mobile forces, distribution of situational awareness between units, reliable data transfer, common infrastructure for all echelons, transparent and unified interface for all media types, minimal use of network resources, and no single point of failure. With full support for maneuvering, ELBIT TIGER™ provides accurate information on the movement of all troops, protecting tactical units from ambushes or friendly fire.

Reliable, real-time information delivery

Operating in challenging conditions such as rapidly-changing network topologies, hostile attacks on network resources, bandwidth constraints, and heterogeneous networks, ELBIT TIGER™ automatically selects the best communications route, according to current media capabilities. Exceptionally versatile, ELBIT TIGER™ cutting-edge technology distributes information via unicast, multicast or broadcast, resulting in data delivery in real-time according to actual need.

Integrating all communications media

ELBIT TIGER™ supports standard open protocols and interfaces as well as those designed for tactical environments. The system seamlessly integrates all communications media LAN, WAN, cellular, software-defined radio (SDR), IP and non-IP tactical radio, WLAN, and satellite channels. Combining large-scale distributed tactical sites with multiple communications media into one dynamic homogeneous network, ELBIT TIGER™ creates a unified and exceptionally reliable information grid. Offering unique support for legacy channels such as VHF and HF, ELBIT TIGER™ provides a built-in protective mechanism that prevents overload of these narrow-band channels.



Proven Expertise Combined with Cutting-Edge Technology

Elbit Systems' extensive and globally proven expertise in tactical communications systems, its highly skilled team of professional engineers, its utilization of today's most advanced technologies, and its close, long-term relationships with customers, along with critical input from the field, ensure the continuous delivery of the most effective and reliable generic and tailor-made solutions to armies and security forces around the world.



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Key Features

- Self-forming, self-healing, and automatic learning of system topology
- Adaptive routing; automatic and dynamic optimal path selection according to shortest path, hierarchy, classification, priorities, connectivity and channel capabilities
- Standard IP data routing throughout the tactical networks (unicast and multicast)
- Optimal channel selection according to connectivity, load, channel capabilities, cost, etc.
- Support for interest-based and location-based groups
- Configurable protective mechanism for narrow-band channels to prevent network overload
- Recovery mechanism when reconnecting after HW failure and/or node disconnection

Key Advantages

- Seamless data transfer over a variety of communications media in real-time
- End-to-end guaranteed message delivery
- Support for ad-hoc networks and dynamic system topology
- Efficient bandwidth utilization for broadcast messages
- Survivability – works in auto-mode when temporarily disconnected from tactical Intranet
- Highly modular and scalable

Technical Specifications

Operating systems:

- Windows XP/7/8 – 32/64bit
- Linux embedded
- Android
- Elbit Systems' Tactical Router (Linux embedded)

Supported hardware:

- Elbit Systems' TMR Family (Core, Max, etc.)
- ETC/PDU/Laptop
- PNR/Raptor/C² Eyepiece

Advanced messaging capabilities

- Priority queuing; messages are handled in internal queues according to level of urgency or type of service
- Distribution of unicast and multicast data from the tactical cloud to the standard cloud
- Torrent-based file transfer
- Adaptive knowledge
- Flow control
- Re-transmission mechanism
- Multiple transmissions of the same message at pre-determined intervals
- Message aggregation and replacement
- Large-size message compression
- **Obsolete message deletion**
- NAT service
- Standard layer 3 services (whilst in TMR platform)



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