

MILSATMAGAZINE

Next Generation Space Defense

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Year In Review 2023: Shaping the Future of Global Security

Gilat Satellite Networks



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The digital transformation of military operations continues to shape the future of global security. Today's modern militaries move faster, smarter, and with greater precision than ever before, based on information systems that consume high bandwidth.



They require a high level of transmission security and secrecy for military COMMs/C5ISR operations

This new paradigm, the net-centric battlefield, is achieved by implementing a globally interconnected broadband communication network (including infrastructure, systems, processes, and people) that speeds up 2-way communications and increases situational awareness. Terrestrial communication is no longer sufficient; satellite communication (SATCOM) is required to meet these growing needs.

Gilat's Strategic Focus on the Defense Market

Gilat Satellite Networks Ltd. delivers globally proven, advanced SATCOM solutions for Defense and Government Applications to help countries solve complex operational challenges. Furthermore, Gilat offers government and military organizations a set of advanced SOTM/SOTP solutions for connectivity everywhere throughout the battlefield and any operations arena.

Gilat's SATCOM solutions have been designed specifically to meet the needs of today's net-centric battlefield, including flexible, secure platforms for huge amounts of data and high-bandwidth applications to connect soldiers, platforms, and terminals across land, sea, and air; continuous and resilient connectivity to ensure that information is available when, where and how it is needed; with all necessary technology, equipment, applications, products, and solutions under one roof.

Gilat offers a one-stop-shop that includes cutting-edge ground segment equipment for satellite networks, modems, antennas, and BUCs all powered by our innovative technology. Gilat also offers an industry-leading network management system. Gilat's offering combines unmatched technical know-how and field experience to help militaries and governments deploy and operate their network infrastructure while reducing the total cost of ownership and lowering risk.

Gilat's military SATCOM expertise and operational experience position Gilat as an excellent choice for today's modern militaries as shown in the company's strategic activities during 2023:

SkyEdge IV

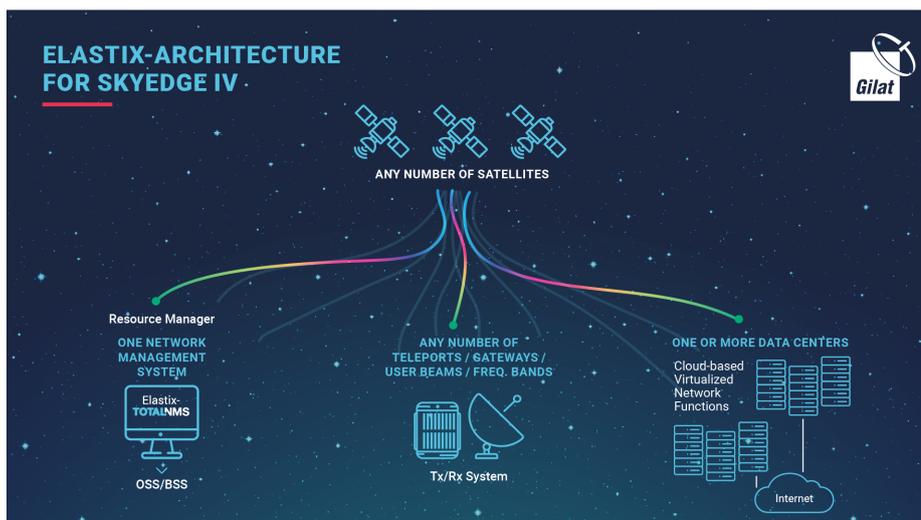
SkyEdge IV is Gilat's next-generation multi-service platform built with our new, advanced Elastix-Architecture. Our new platform is designed to provide the best ground segment solution for the Elastix Era of multi-orbit Software-Defined Satellites (SDS) placed in multi-orbit (GEO and NGSO), providing very high capacity over thousands of concentrated beams focused on specific needs. SkyEdge IV provides military-grade security based on TRANSEC & FIPS standards for multiple applications including Communication-On-The-Pause (COTP), Communication-On-The-Move (COTM), unmanned systems, manpacks, and armored fighting vehicles.



SkyEdge IV is a highly elastic platform that enables, together with SDS, the creation of programmable Software-Defined Networks (SDN) that support on-the-fly changes to optimally address dynamic network changes.

The Elastix-Architecture is a cloud-based distributed architecture, enabling the ability to split between transmission functions located in the gateway and data processing SW-based functions which can be flexibly deployed on cloud servers located anywhere in the network.

Gilat developed two unique VSATs specifically to address the special needs of military and government organizations:



SkyEdge IV Aquarius is an ultra-high-performance family of VSATs providing security forces with ruggedized terminals that can be deployed on vehicles or carried in a backpack, ensuring seamless connectivity for both on-the-move and on-the-pause missions. It further delivers reliable beyond-line-of-sight (BLoS) connectivity between command and tactical levels, allowing a seamless flow of information. Our resilient networks provide true interoperability, drastically reducing the time between decision, implementation, and evaluation. In addition, Gilat's low SWaP systems allow military and border patrol teams to exploit the full potential of long-endurance missions with airborne, maritime, and land-based communications.

SkyEdge IV Taurus-M is a fast-to-deploy, lightweight, easy-to-operate, and low SWAP (Size, Weight, and Power) military modem ideal for armored fighting vehicles and man-pack deployment. Compliant with MIL-STD-810F standards, Gilat's SkyEdge IV Taurus-M answers market demands for the smallest, ruggedized, high-performance modem for mobile satellite communications. Setting a new standard for mission flexibility, the Taurus-M delivers highly available high-speed satellite communications for on-the-move (SOTM) and stationary operations. It is the smallest modem on the market today which offers these capabilities. It enables government agents and warfighters to accomplish their critical missions, offering rapid connectivity to data, voice, and telephony, even under the harshest conditions.

Global satellite operators Intelsat and SES have already selected Gilat's SkyEdge IV to support new satellites. SES will use the SkyEdge IV platform to simultaneously operate with its SES-17 satellite and its upcoming second-generation NGSO constellation, O3b mPOWER. Intelsat will use the SkyEdge IV platform to provide expanded capacity from the Intelsat IS-40e satellite.

Gilat also received initial orders for the SkyEdge IV Aquarius modems from two leading defense system integrators in the U.S. These are the first steps in establishing a significant channel for Gilat's next-generation modems based on U.S. government demand.

Acquisition Of DataPath

Earlier this year, Gilat signed an agreement to acquire DataPath Inc., a leading U.S. Defense Satellite integrator.

DataPath has more than 25 years of experience in integrated communications and information



Security must be based on TRANSEC & FIPS standards

technology and is a market leader in trusted communications systems, services, and end-to-end solutions for mission-critical operations. DataPath is a U.S.-based expert systems integrator with a strong focus on the Department of Defense (DoD) and U.S. Government (USG) sectors, bringing leading competencies in systems engineering, software development, and mechanical engineering.

These attributes have enabled DataPath to secure and maintain their continual presence in the provision and sustainment of MILSATCOM systems, such as portable ground stations and related services.

Unmanned Airborne Vehicle

Gilat's BlackRay Airborne family of UAV/UAS/RPA solutions consists of highly integrated airborne SATCOM terminals with minimal size, weight, and power (SWaP). Ideally suited to the needs

of long-endurance Beyond-Line- Of-Sight (BLoS) operations for UAVs of all sizes, BlackRay terminals enable high throughput communications for military or commercial applications. They comprise best-of-breed antenna, high-performance modem, and BUC technologies developed and manufactured by Gilat. Modular system design facilitates customization to meet customer specifications in short time frames. Gilat closed a multi-year, multimillion-dollar strategic agreement with a major defense company and a world-leading UAV manufacturer. Gilat will provide its next-generation BRP60 terminal for unmanned aerial vehicles.

Solid-State Power Amplifier

Gilat's U.S.-based subsidiary, Wavestream, launched Endurance, a new line of high-power, "always-on" Solid-State Power Amplifier (SSPA) products. It is positioned to lead the industry in linear power with its gateway-ready, fully redundant design that ensures the maximum available power for multiple carrier inputs.

The 500W Ka-Wideband Block Upconverter (BUC) covers military Ka- and commercial Ka-frequency bands and features hot-swappable components for a truly "always-on" satellite communication solution. Endurance is unique in its ability to replace existing SATCOM solutions currently serviced by Traveling Wave Tube Amplifiers (TWTAs).



The U.S. DoD is already evaluating this SSPA for a significant SATCOM program. Once certified, Gilat expects follow-on orders valued at millions of dollars per year in the coming few years and the ability to pursue additional U.S. DoD and commercial programs.

Also in the U.S., a system integrator selected Gilat's newly launched Defense Hub Network SSPAs for a U.S. Army SATCOM project. With this achievement, Gilat expects follow-on orders of millions of dollars in the coming years and the ability to pursue other U.S. Army programs with an addressable market of more than \$100 million dollars.

Meeting The Needs of Defense Organizations Today and Tomorrow

Wartime and tactical missions often take forces into unfamiliar territory crawling with unpredictable and unknown threats. Access to real-time intelligence on the ground – where and when troops need it – can make all the difference between a successful and an aborted mission.

Gilat continues to dedicate strategic resources to providing defense organizations with the technology, expertise, local presence, and support they need to meet their current and future military needs.



Doreet Oren

Author Doreet Oren has been with Gilat since 2012 and is responsible for defining product positioning, solution messaging, go-to-market strategies, market research, and analyst relations. Ms. Oren has over 20 years of industry experience, and has held management positions in R&D, Product Management, Product Marketing and Solution Marketing for international high-tech companies. In this capacity Ms. Oren contributes to product and solution definitions and is responsible for delivering the company's vision to the media and analyst community.

Oren publishes thought leadership articles in renowned international journals and speaks at numerous industry conferences worldwide. Oren received a BSc in Computer Science from George Washington University and graduated from the Modern Marketing Program at the Recanati Graduate School of Business Administration, Tel Aviv University.

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