

Press release

RTI Awarded \$1.25M to Advance Generative AI Research for the United States Department of Air Force

RTI Connex[®] is the only solution to enable a safe, secure, and reliable communication framework for AI-Enabled Air Force simulation and training systems

SUNNYVALE (USA)/London – August 27, 2024 – [Real-Time Innovations \(RTI\)](#), the infrastructure software company for smart-world systems, today announced that it has been awarded a \$1.25 million Small Business Innovation Research (SBIR) Phase II contract. With this contract, RTI will help create a secure, standardized, and reliable AI framework for interaction between software agents, humans, and the target environment– enabling rapid deployment and reuse of cutting-edge AI technologies. [RTI Connex[®]](#) was chosen as the data-centric, open standards communication backbone due to its battle-tested features related to simulation support, modularity, scalability, security, and resilience in intelligent systems.

As autonomous systems become an increasingly critical part of defense strategies, distributed intelligence will allow real-time data processing across multiple devices and locations. This will optimize performance and improve decision-making, facilitating seamless AI integration and innovation on the battlefield and beyond.

“For AI to effectively work in large distributed real-world systems, our customers require modular, non-monolithic solutions; they also require data-centric security, which has not been addressed within enterprise AI solutions today,” said Paul Pazandak, Director of Research at RTI. “Connex is the only technology today that offers the advanced features required to enable this reality. We are excited to receive continued funding to advance our open standards-based generative agentic framework to help facilitate the development of AI-enabled training solutions for our warfighters.”

Based on the [Data Distribution Service \(DDS™\) standard](#), Connex addresses all distributed communication needs for critical systems of all sizes, allowing for more modularity and less code, which substantially reduces development costs. Connex offers access control, security, self-discovery, extensive operational deployment in critical systems, and is supported by both open-source and commercial implementations.

RTI's contract is part of a larger collection of SBIR-funded efforts focused on applying technology developments, such as generative AI, to improve the autonomous capabilities of unmanned platforms as well as their human-machine interfaces. This effort will use model-based systems engineering and robust testing to create autonomous systems that meet the safety, security and reliability requirements needed for fielding long range, non-lethal drones for surveillance, electronic warfare and communications.

Connex is field-proven across many industries to communicate real-time data with the highest level of reliability. Offering advanced capabilities and backed by global engineering and support teams, Connex has brought technical success to more than 2,000 systems. Uniquely, Connex allows applications to work together as one and users can build applications that combine advanced sensing, fast control, and AI algorithms.



Picture (source: RTI/Shutterstock_1074284264)

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About RTI (www.rti.com):

Real-Time Innovations (RTI) is the infrastructure software company for smart-world systems. RTI Connex is the world's leading software framework for intelligent distributed systems. Uniquely, Connex users can build systems that combine advanced sensing, fast control, and AI algorithms.

RTI is the market leader in products compliant with the Data Distribution Service (DDS) standard. With 2,000 customer designs, RTI excels at getting customers to production. RTI software runs over 250 autonomous vehicle programs, supports dozens of automotive ADAS and software-defined architectures, controls the largest power plants in North America, integrates over 400 major defense programs, drives a new generation of MedTech systems and robotics, and underlies Canada's air-traffic control and NASA's launch control systems. RTI runs a smarter world.

RTI is privately held and headquartered in Silicon Valley with regional offices in Colorado, Spain, and Singapore.

About AFRL (www.afresearchlab.com):

The Air Force Research Laboratory is the primary scientific research and development center for the Department of the Air Force. AFRL plays an integral role in leading the discovery, development, and integration of affordable warfighting technologies for our air, space and cyberspace force. With a workforce of more than 12,500 across nine technology areas and 40 other operations across the globe, AFRL provides a diverse portfolio of science and technology ranging from fundamental to advanced research and technology development.

About AFWERX (www.afwerx.com):

As the innovation arm of the DAF and a directorate within the Air Force Research Laboratory, AFWERX brings cutting-edge American ingenuity from small businesses and start-ups to address the most pressing challenges of the DAF. AFWERX employs approximately 370 military, civilian and contractor personnel at five hubs and sites executing an annual \$1.4 billion budget. Since 2019, AFWERX has executed over 6,200 new contracts worth more than \$4.7 billion to strengthen the U.S. defense industrial base and drive faster technology transition to operational capability.

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