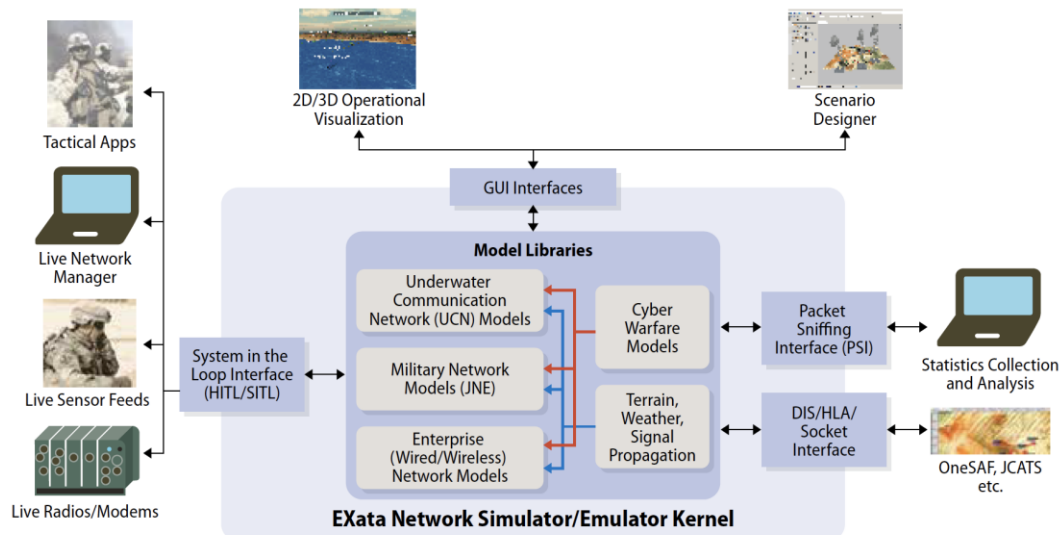


# EXata Network Modeling – Multi-Domain Networks

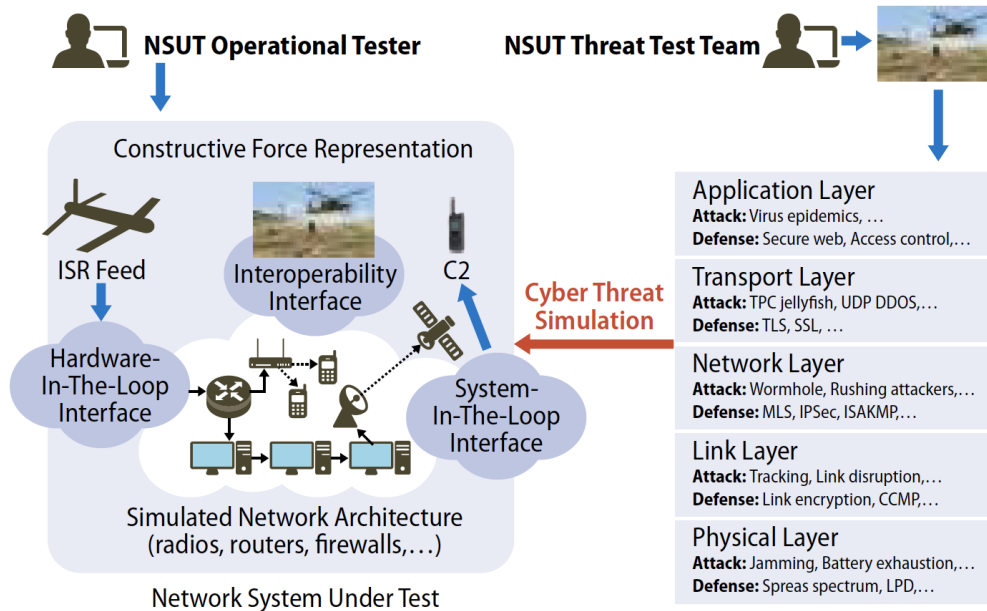
Design, test, analyze & assess cyber resilience of tactical battlefield communications and networks

- EXata Multi-Domain Networks is a Government-Off-the-Shelf (GOTS)
- library that uses EXata as the underlying network simulation platform and leverages its efficient parallel discrete-event simulation kernel and system-in-the-loop interfaces.
- Provide military personnel and defense contractors with a high-fidelity LVC modeling and simulation environment to quickly and cost effectively plan battlefield network architectures and mission scenarios and test new radios in operationally-accurate contexts and “at scale” deployments.
- EXata Multi-Domain Networks leverages the efficient parallel discrete-event simulation kernel provided by EXata to support its ability to run in both ‘faster than real-time’ mode, as well as, in emulation mode when synced with live components. EXata Multi-Domain Networks also provides the ability to scale to multi-brigade deployments with ground-, air-, and space-based assets.



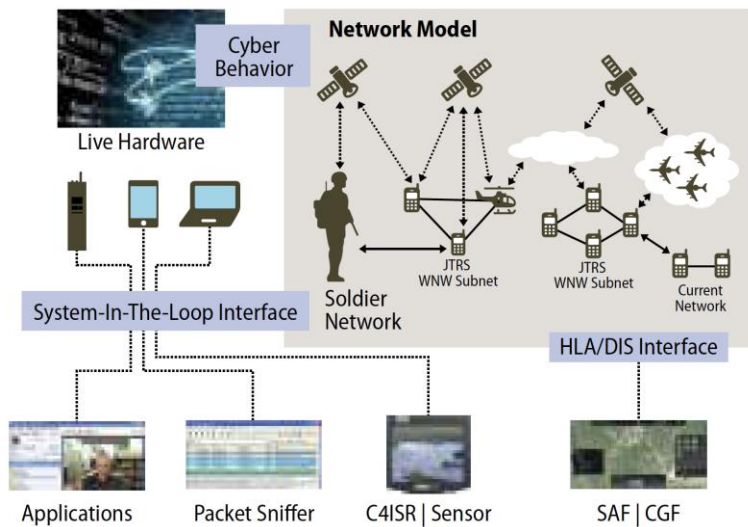
# StealthNet Cyber Library

- StealthNet is a GOTS Cyber Modeling Simulation capability developed under a Test Resource Management Center (TRMC)-funded S&T project.
- StealthNet allows users to represent in simulation a wide range of cyber-attacks operating on tactical and enterprise network architectures and devices.



# Keysight Technologies' Solutions

Live, Virtual, Constructive (LVC) network models facilitate at-scale network representation in operational context.



Our LVC models have facilitated the use of real-time network emulations and integrations with live hardware and software to create at scale network representations for in-field or lab-based use:

- Environment
- Operations
- Live interactions
- Cyber warfare
- Application centric

## Contract Vehicles

- EXata Multi-Domain Networks SBIR Phase III IDIQ (Prime)
  - Joint Network Emulator SBIR Phase III
- CSRETI IDIQ (Sub)
  - Cyberspace Science, Research, Engineering and Technology Integration
- AMCOM EXPRESS BPA (Sub)
  - Multiple Partners

## List of models available in EXata MultiDomain Networks:

(\* in the Military Wave Library)

### Model name

- Wideband Networking Waveform (WNW) v 4.0.8.1
- Soldier Radio Waveform (SRW) versions 1.01.1 and 1.1.1
- Mobile User Objective System (MUOS)
- Single Channel Ground and Airborne Radio System (SINCGARS)
- Enhanced Position Location Reporting System (EPLRS)
- Warfighter Information Network-Tactical (WIN-T): NCW and HNW
- Blue Force Tracker (BFT) 1 and 2
- Mode 5
- Adaptive Networking Wideband Waveform (ANW2)
- \* Link-16
- \* Link-11
- \* Ultra High Frequency (UHF),  
Very High Frequency (VHF)
- \* Satellite Communications (SATCOM)

# EXata MultiDomain Networks In-the-Loop Interfaces

## Interface name

- JTRS Enterprise Network Manager (JENM) interface
- One Semi Automated Force (OneSAF)
- C2 adapter interface
- C3 driver interface
- Red side interface with live radios
- Black side interface with live radios
- Interface to live mission command applications
- Interface to HLA/DIS federates
- Interface to DRA/DMOD
- Interface to live chat, VOIP, streaming video applications
- AMIE: Architecture Management Integration Environment

For more than 15 years, Keysight Technologies has been providing network design and analysis tools and cyber training systems that enable customers around the world to develop, test, and deploy large sophisticated wireless networks and communications equipment.

Our solutions integrate software virtual networks with physical hardware and applications, allowing users to rapidly test a wide range of highly realistic scenarios for enhanced operational planning, training, and communications without the expense of building out physical infrastructure.



For more information on Keysight Technologies' products, applications, or services, please visit: [www.keysight.com](http://www.keysight.com)