The NGTS team is currently engaged with multiple government and DoD RDT&E, training, and distributed operations centers across the United States Navy, Air Force, and allies to continuously develop and update the NGTS software suite. These users depend on the expertise and professionalism of the team and the accuracy of the software for intelligent threat creation and control in support of large scale exercises.

NGTS v3.1 incorporates the NGTS Behavior Editor – a user-friendly (“code-free”) tool which allows users to graphically define the actions and reactions of computer-generated platforms. Each behavior represents a separate mission-set, doctrine, or customized decision tree that allows the platform to exist and react in their environment without the need for additional software modifications.

Having customers across the government and DoD allows the software to capitalize on each customer’s needs, desires, and strengths resulting in a robust enterprise from which all can benefit. For example, an improved Anti-Submarine effort has provided the drive to grossly revamp maritime reconnaissance, Anti-Submarine Warfare, and entity count capabilities. On top of improving a significant number of maritime platforms with associated radars and weapons, NGTS can now support up to 5,000 “distractor” entities that provide clutter but can intelligently follow roads and sea lanes. Although created for one customer, others quickly discovered the benefits of these improvements and have adapted them into their specific communities’ needs.

NGTS consists of five main components

- The Simulation Engine, which models platforms, weapons, and subsystems
- The Battle Monitor, which displays entities in the synthetic environment and controls NGTS entities
- The Database, which contains parametric data and behaviors
- The Analysis & Reporting Tool, which is a framework for analyzing data and providing meaningful debrief reports.
- The LVCR Tool, records NGTS supported simulation protocol data for playback locally or across the network.

Allows externally developed models to be easily integrated with the NGTS framework.
With the early 2018 release of NGTS v3.2 comes several improvements:

- Improved distractor performance including better support for multilane roads
- Improved Within-Visual-Range (WVR) performance of fighter aircraft
- Expanded Link-16 modeling, display and control
- Weapon Server capability to launch and fly-out munitions from an external federate
- Improved modeling and display of jammer effectiveness
- Improved virtual wing man formation modeling
- Additional dismounted infantry support
- New “weapon miss reason”
- Improved analysis and reporting capabilities including the ability to generate reports such as shot cards and emitter mode changes
- Addition of the scenario director which allows for the specification and execution of scenario level directives and behaviors
- Ability to record audio and video and provide a synchronized playback with synthetic environment network data
- Additional authoritative Intelligence Center models integrated
- Graphical display of IADS communication links and their status
- New map-centric entity controls

Understanding today’s military OPTEMPO, NGTS takes advantage of modularity to make the most of the development and testing time. Featuring a “plug-in” architecture, externally developed models are easily integrated into the NGTS framework, allowing flexibility, adaptability, and customization. No longer are customers limited to periodic software releases as they can build tailored models, menus, and behind-the-scenes interactions on their own and load them into their scenarios. Additionally, NGTS can run time compression to test complex scenarios and behaviors at an accelerated, faster-than-real-time pace.

The NGTS team collaborates with other Navy organizations such as the Office of Naval Research (ONR) and Space and Naval Warfare Systems Command (SPAWAR) to expand NGTS capabilities in support of LVC, training, research and experimentation.

For further information on this exhibit, or on business opportunities with NAVAIR, please contact our Next Generation Threat System Team by telephone at (301) 995-2077, by e-mail at NGTS2@navy.mil, or by mail at Next Generation Threat System Team, NAVAIR, 48150 Shaw Road, Patuxent River, MD 20670.