



SCALABLE NETWORK TECHNOLOGIES

Company Overview

Scalable Network Technologies (SNT) develops and supports high-fidelity emulation and simulation software that revolutionize the design and development of military and commercial wireless networks and devices.

Products and Services

QualNet® Developer is the only modeling and simulation tool that can explore and analyze early-stage alternative device designs and application code in closed, synthetic networks at real time speed, at a scale of up to thousands of network nodes.

EXata® is the only network evaluation tool that can create “software virtual networks” (SVNs) – exact digital replicas of physical networks in virtual space that are indistinguishable to applications, devices, or users. Unlike traditional modeling and simulation products, SVNs created in EXata can interoperate with all components of physical networks - devices, applications, users, and network management tools.

Together, EXata and QualNet provide an integrated and seamless solution for evaluating and assuring the performance and reliability of legacy and future wireless networks.

SNT’s undisputed leadership in parallel processing technology enable users of QualNet and EXata to leapfrog existing simulation and emulation tools in speed, performance, and cost savings.

Core Competencies

SNT has a reputation for top quality service in emulation and simulation of computer networks worldwide. With a team of experts in networking, simulation and parallel processing from the world’s finest academic research institutions and industry,

SNT has collective expertise in wireless, satellite, cellular, wired, and mobile ad hoc networks. The company also offers customers unparalleled service in the area of custom model development, parallel execution, integration, training and support.

SNT’s History



Dr. Rajive Bagrodia is the Founder and CEO of Scalable Network Technologies. He created SNT in 1999 in the wake of significant innovations his research group achieved in the theory and practice of performance prediction for complex, large-scale computer and communication systems.

Dr. Bagrodia obtained a Bachelor of Technology in

The SNT Solution

- **New evaluation technologies for new network technologies** - EXata enables network managers and device developers to create software virtual networks—exact digital representations of networks that are indistinguishable to applications, components, or users from a real physical network.
- **Enables training on new technology well in advance of deployment** - Both QualNet and EXata can interoperate with applications to bring communication realism to training tools. EXata takes it even further by interoperating with devices, management tools and humans-in-the-loop.
- **Dramatically reduces cycle time and cost of device development** - SNT technologies enable engineers to perform network and device tests that traditionally required months to perform. Test are conducted at real-time speed, with real-network and environmental behavior. Evaluation cycle times are dramatically compressed and physical testbeds can be deployed at final prototype stage – or not at all.
- **Delivers ultra-fidelity at 50 or 5,000 nodes** – Because of SNT’s patent-pending, computationally-efficient codebase, you get the same accurate representation of your wireless or mixed-mode network whether you’re testing 50 nodes or 5,000.

Electrical Engineering from the Indian Institute of Technology, Bombay and PhD degree in Computer Science from the University of Texas at Austin.

Dr. Bagrodia has published over 150 research papers in Computer Science journals and at international conferences on high performance computing, wireless networking, and parallel simulation. He has also served as a Professor of Computer Science at UCLA, where he leads a research group in mobile computing and parallel and distributed programming that produced simulation systems such as Maisie, Parsec, and GloMoSim.

The GloMoSim library for simulation of large, mobile ad hoc networks was part of DOMAINS, a Defense Advanced Research Projects Agency (DARPA) funded project at UCLA. QualNet grew out of ideas developed in this project.

Locations

SNT Corporate Headquarters

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Regions Served by SNT Distributors

- Australia and New Zealand
- China
- Europe
- India
- Israel
- Japan
- Latin America
- Malaysia
- Middle East, Turkey and North Africa
- South Korea
- Taiwan

Customers

With more than 1,000 worldwide license deployments, SNT plays an integral part of the development, testing, training and operations of next-generation defense and commercial networks. Below are some of SNT's customers.

Key Features & Model Libraries

- 2D and 3D Graphical User Interface that integrates to STK, VR-Forces and other third party applications
- WiMAX Library for broadband wireless networks.
- Sensor Networks Library for Zigbee
- Network Security Library for modeling networks with encryption, authentication, security keys, certificates, and attackers
- Advanced Propagation Models for wireless networks in urban and suburban terrain
- Multimedia and Enterprise Library for traffic engineering in a broad range of networking applications
- Standard Interfaces Library for HLA and DIS to integrate to other combat simulators
- Wireless, TIREM \ddagger Propagation and Urban Propagation Libraries for modeling urban networks, foliage and weather effects
- Cellular and UMTS Libraries for third Generation (3G) mobile networks
- Military Radios Library \ddagger for Link-11, Link-16, surrogate JTRS radios, and other standards and models



\ddagger These libraries are subject to export restriction under the International Traffic in Arms Regulations (ITAR) 22 CFR 120-130. International sales of these modules require authorization from the US Department of State.