

DataSoft Network Test & Evaluation System (DANTES)

Real World Software-Defined Radio (SDR) Network Testing

DataSoft specializes in hardware and software design and development for the multi-waveform, software-defined radio (SDR) market, addressing the needs of complex defense and commercial applications. The complexity and sophistication of the hardware and software for this market space demonstrates the need for a flexible, scalable, efficient and cost effective test and evaluation methodology. DataSoft addresses this need with DANTES, the DataSoft Network Test and Evaluation System.

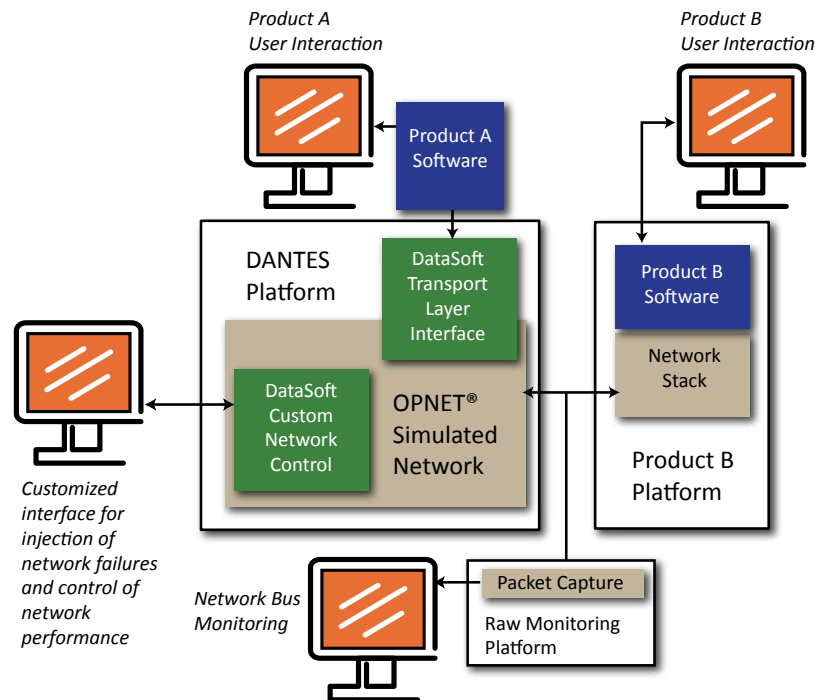
DANTES is built upon the industry-standard OPNET® platform. The DataSoft customized network control interface permits the injection of any type of network failure at any layer in the network. End-user networking software products can be tested in a realistic environment without the expense of creating a real network. DANTES facilitates injecting errors that are not easily created or replicated in real networks. Network performance can also be monitored for specific applications.

The block diagram to the right shows an end-user networking software Product A, running on the DANTES platform, interfaced to end-user networking software Product B. Both products represent real applications.

The DANTES network control interface is used to inject errors into the simulated network to evaluate the interaction of Product A with Product B.

The transport layer interface mimics the real API that network applications use to interface with a real network stack.

Data is captured and reported using standard OPNET tools.

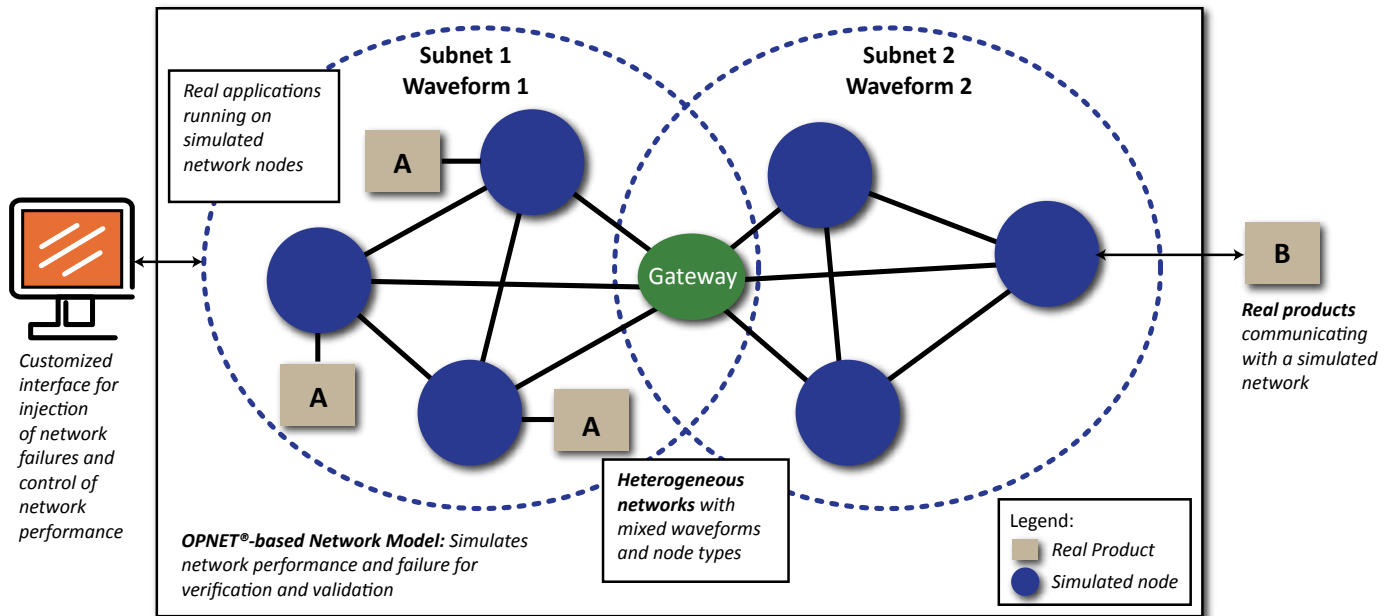


- Configurable
- Repeatable
- Deterministic
- Scalable

The DataSoft transport layer interface creates virtual sockets for real applications in the OPNET stack. This enables repeatable testing of failure conditions on the application's host computer.

DANTES - DataSoft Network Test & Evaluation System

Sample DANTES Implementation



In a typical DANTES testing and evaluation simulation, the customized network control interface is used to inject errors into the network. The interaction of two end-user networking software products (A and B) can be tested bridging multiple subnets and running different waveforms. This sophistication allows for greater control over the testing, close monitoring of the results, and a repeatable testing platform.

About DataSoft

DataSoft specializes in software and hardware research, design, and engineering of customized components, products, middleware, and protocols for communication systems based on software-defined radio technologies.

As the recipient of multiple Department of Defense research grants (SBIR), DataSoft is actively working on projects for the Joint Tactical Radio System (JTRS) that enable superior wireless communications capabilities. Expertise includes SCA, MANET, tunable RF components, network protocols, advanced network management, modeling and simulation.

Headquartered in Scottsdale, Arizona, DataSoft has a successful history of high technology innovation for multiple markets covering both defense and commercial applications.

For more information about DataSoft and what we can do for you, contact us at:

DataSoft Corporation
 1475 N. Scottsdale Rd., Ste 460
 Scottsdale, AZ 85257
 1-800-797-7153
 info@datasoft.com
 www.datasoft.com

Feature	Benefit
Simulates network performance and failures without building a real network	Fast and cost effective testing of networking systems
Facilitates rapid prototyping capabilities	Reduces time for product design and development
Tests heterogeneous networks with multiple waveforms	Analyzes realistic yet complex network scenarios and end-to-end behaviors
Repeatable and deterministic testing of network systems	Supports best practices for verification and validation
Tests real products in a simulated network via MAC layer or transport layer interface	Increases testing confidence by matching real-world interfaces
Based on the industry-standard OPNET platform	Re-use existing OPNET models and capitalize on existing personnel skill sets