

Case Study: Net Monitor Project  
January 2003 – March 2004

# National Defense Contractor

## Java and SNMP Development

### Original Challenge

The customer needed to graphically identify the location of network nodes based on information from a network management system that the group was developing. The project team had a partial solution to track network topography, but it required rework.

Genova redrafted the customer's solution and created a suite of protocols used to develop and demonstrate end-to-end communication services across mobile ad-hoc military networks. These revisions assured efficiency in the following features:

- **Throughput** – the amount of work a computer can do in a given time period.
- **Latency** – the time required for a packet of data to get from one designated point to another.
- **Delivery** – the dependable execution of the final data delivery process.

### Genova Solution

Genova was first tasked to create a demonstration by merging two existing skeletal Java applications. After favorably viewing our successful presentation, the customer became aware that even more could be done to improve reporting capabilities. Genova was then tasked with adding SNMP coding to the demonstration, thereby creating a superior tracking and reporting tool.

### Future Benefits

The customer's tracking utilities originally were developed simultaneously with its network management system, but the project requirements were vague and the resulting functionality was incomplete. Genova therefore partnered with the customer to extract significant details from existing requirements and provided a high-quality demonstration application.

Due to the success of the initial demonstration, Genova extended it into a full-featured tool. We enhanced the network node tracking capabilities with SNMP protocol reporting, which delivered a rich set of metrics about the network and its nodes.

This technical project enlarged the depth and breadth of what Genova engineers offer our customers. Because we consistently increase our practical knowledge and expertise, other clients will continue to benefit from such real-world software applications.