

Honorable Mention Award Next-Generation Incident Command System for Distributed Disaster Response

The Next-Generation Incident Command System for Distributed Disaster Response (NICS) is an integrated sensing and command-and-control system that provides real-time shared situational awareness to all personnel involved in responding to large-scale disasters. The core enabling technology of NICS is a multilayered service-oriented software architecture (SOA) that promotes scalability, security, and data distribution. Several unique building blocks leverage the SOA, including a specially designed web application, GPS-enabled device data feeds, and shared geo-referenced virtual collaborative whiteboards. The NICS architecture has been designed to support small to extreme scale events at a national level, adopting an elastic scalability approach using cloud-based services. Developed in partnership with the Department of Homeland Security's Science and Technology Directorate and the California emergency-response community, NICS enables effective collaborative command of disasters.