

MANTECH ENSURES MISSION-CRITICAL APPLICATION PERFORMANCE WITH ITRINEGY NETWORK EMULATOR

ManTech
International Corporation

ManTech is one of the most trusted and respected providers of advanced technology, technical services, and security solutions in the United States. They have developed and refined their capabilities to match the rapid evolution of technology in modern society today, offering a broad range of discrete and integrated solutions.

ManTech's experience in the demanding and unforgiving field of national security has instilled a dedication to ethics and an unwavering commitment to quality, which is applied equally to all of their work with government and industry.

Identifying & Mitigating Application Performance Issues

ManTech supports major national missions, such as military readiness, terrorist threat detection, information security and border protection. Many of their clients communicate world-wide which means they need to understand how their client applications will work no matter where in the world the users are or what kind of networked environment the data needs to travel in.

Ernest McCaleb is a Network Architect for ManTech and he knew it was imperative to test their applications in all the possible 'real-world' network scenarios over which they would be deployed. "We service multiple agencies within the Department of Defense, and understanding all the issues that impact application performance should be an essential part of the testing process," said Ernest. "Being able to test under all these scenarios with the confidence they match true real-world conditions is really important, so that no matter where our clients' data travels, we know we have identified and mitigated serious performance issues."

Replicating Real-World Networks in the Lab

Ernest, as a very experience network specialist, knew the answer lay with Virtual Test Networks and specifically Network Emulation, a technology that replicates not only different network types and topologies but all the likely network conditions. Ernest didn't want to simulate a network, he wanted his applications to experience the "real-world" network conditions so it had to be enterprise class network emulation.

Ernest comments "I was aware of other network emulation providers, but found that they didn't offer the extensive capability I was looking for. I did my research and chose iTrinegy, who had both an impressive selection of network emulators and test knowledge; we chose their INE Enterprise product as it covered every eventuality we might need."

ManTech purchased iTrinegy's 'INE Enterprise' multi-port, multi-path fully meshed capable network emulator with capabilities to replicate Satellite, Radio over IP and, MPLS networks. Ernest goes on to say "Most of the time, customers don't care about the underlying protocols. We recently had a customer in the Middle East that needed to communicate over different network links back to the USA. We needed to fully understand what it would be like between these geographies. We quickly noticed by using the emulator how the MPLS network was impacting some of the applications, especially the mail exchange."

Many of ManTech clients utilize satellite links due to the nature of the terrain. "One of the issues with satellite is that latency is a major problem. Using the iTrinegy emulator we were able to calibrate the exact latency number e.g. 400 milliseconds and we were then able to experiment with other network characteristics such as loss, jitter etc," said Ernest. "This is all done from the comfort of our labs here in the US. Pre-deployment testing allowed us to see how our customers' applications could be impacted, which gave us the ability to mitigate these issues early in the test cycle."



ManTech chose iTrinegy INE Enterprise as it could comprehensively handle all the envisaged test scenarios envisagedeventuality the company might need.