

Financial Services Center eTravel Load Testing



The Department of Veteran's Affairs (VA) implemented a department-wide e-Travel solution, FedTraveler, to facilitate the scheduling of travel to any necessary location and obtain online booking services for airline, hotel, and car rental services. Because of the high number of travelers within the Department, the VA engaged with CorTechs to conduct load and stress tests to evaluate the performance of the eTravel system over the course of several weeks. A total of 20 tests were conducted over a 12-week period. The two primary goals were to validate that response times from the application would be below 30 seconds

at peak VA loads and to verify that the VA internal infrastructure would be able to support the expected network load.

Through conversations with subject matter experts on the eTravel application, the definition of a 100% VA load was established and used to benchmark response times and other performance metrics in relation to this load. 100% VA load represents the anticipated usage of the application by the VA during peak times. The activities of the 100% VA load included the most common and critical functions of the application.

Tests were conducted on the Quality Assurance (QA) environment from just outside the Hosting Center, located at Orlando, FL, as well as from three locations on the VA network (Austin, DC, and Portland). Results obtained from the hosting center tests were conducted to identify the performance and capacity of the application excluding any impact from the internet and/or VA network. The other three sets of tests were conducted to evaluate the impact of the VA infrastructure on the response times.

Through the course of numerous iterations of testing, several performance issues were identified in both the hosting center environment as well as the VA network environment. These issues resulted in errors that made the application slow or unavailable at times. CorTechs assisted VA personnel with fixing the problems and network errors and application response times were significantly reduced, enabling the application to meet response time requirements