![Mindtree logo]

Mindtree
Welcome to possible

Powering performance through a tailor-made solution

Mindtree created a reusable performance test framework for a customer in enterprise security administration.

Business challenge

Our customer has a product for enterprise security administration. It is a UNIX based client server architecture with a UI based interface to the server. Due to growing data demands, the customer needed to understand the throughput of the critical transactions of its system. The primary goal of the engagement was to study the behavior of the server under increasing user load and data. The goals were to:

- Identify optimal number of application servers and gateways.
- Identify the peak throughput for various business critical scenarios.
- Identify and tune the performance pain points.
- Build reusable performance test framework.

Our solution

Mindtree devised a tailor-made solution for our customer, comprising of two phases. The first phase involved identifying the optimal number of application servers, gateways and finding peak throughput of key scenarios. During this phase, the team also developed the performance execution and monitoring framework. They also created environment validation and data generation scripts.

Business impact

- 68% improvement in the timeline of a critical business scenario.
- 97% improvement in database query response, from several seconds to a few milliseconds.
- Formulated the optimal number of application servers and gateways.
- Reusable test framework for testing future builds.
- Modular framework design to support new features.

Highlights of the first phase:

- Derived the optimal number of application servers and gateways that needed to be configured on each configuration of server.
- Developed a reusable, documented performance execution framework and performance monitoring framework. They can be used by the customer for future performance testing of server.
- Designed the modular architecture of the framework to serve the purpose of easily adding new features.
- Facilitated value- adds such as reusable and documented environment validation scripts. They serve the purpose of quick environment sanity checking for future performance tests.

The second phase focused on benchmarking the performance of the server. It also involved database level tuning and a round of regression tests to validate the tuning.

Highlights of the second phase:

- Achieved a throughput of 10-12 trans / sec through optimal configuration.
- Facilitated multiple configuration level changes and design level recommendations to the databases.
- Achieved 97% improvement in database query response time, from several seconds to a few milliseconds.

About Mindtree