SCALABILITY TESTING SERVICE (STS)

The most reliable approach to simulating user load and measuring its effect

OVERVIEW

The diversity of technologies that e-business systems must accommodate is greater than ever before. Moreover, there is constant pressure to change, update, and enhance systems more frequently. To meet the expectations of their customers, corporations have to respond quickly to market demands or risk losing customers to competitors.

Scalability has become one of the most critical aspects of web development. With the world as an audience, the biggest question that plagues Internet developers is how to create applications that will adequately handle unpredictable user loads.

For example, the risks and liability for mission critical applications involved in the handling of funds can be disastrous if the applications do not perform as anticipated. Consequently e-business applications expose companies to far greater liabilities than traditional applications have in the past. With traditional applications, it is far easier to predict user loads. Moreover, companies typically test such a product with a limited customer set before distributing it to the full customer base. The Internet does not allow for this luxury. Once an application is deployed on a web site, all customers have immediate access.

Functional, performance, browser and platform problems affect an unlimited audience, necessitating a much more rigorous testing process before releasing products to this medium.

Recognising the growing importance of e-business applications to organisations, Quality Automation has defined a scalability test strategy that helps clients avoid the obstacles that can surface on the path to a successful e-business implementation.

Called the Quality Automation 'Scalability Testing Service', it has been designed to help assess the readiness of e-business applications, and to identify:

1. **Content and application implementation errors.**
2. **Architecture performance bottlenecks.**
3. **Data integrity and reliability problems.**
4. **Scalability limitations during peak demand.**

Using proven 'best practices' and leading edge scalability testing software, QA consultants simulate multiple concurrent users generating real-world load traffic on your application. Critical performance data relating to your application response time and server activity is retrieved. This is subsequently analysed and interpreted for your development staff.

Our scalability testing program has four phases:

1. **Load definition.** Where we determine the appropriate types of automated scalability testing that can be performed on your application. This phase includes application walkthroughs, business-scenario confirmations and simulation strategy.

2. **Test creation.** Business scenarios are translated into test scripts that simulate required randomization, user 'think time', bandwidth differences, security requirements and data dependencies.

3. **Execution and analysis.** Tests are run and test metrics such as connection time, load time, transaction throughput, Web server and database server utilization statistics, are collected.

4. **Reporting.** Results are analysed and interpreted in a project report that summarises all tests that have been run and draws conclusions, and makes recommendations on the scalability of your application.

To learn more about how QA can help you improve the reliability and performance of your e-business applications, visit: www.quality-automation.com.

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