Performance Testing

Background

Our client Telenor Pakistan, one of the telecom giant in the country has invested significantly in the improvement of customer care services. Large of number of customers calls the call center for different queries very frequently. Customer information is located on different data bases and need to be fetched in a seamless manner. To supports its Customer service Telenor requires a comprehensive solution for handling customer Inquiries which will

- Improve CRO service level with the customers
- Provide effective monitoring and control
- Enable management to track CRO activities
- Monitor CRO interactions with customers

Vendor suggests a solution with a user friendly interface for CROs, backend processes for uninterrupted requests processing and administrator interface for management of the application. This solution would provide CROs with an integrated view of each customer across multiple channels/services over time. It will enable the Telenor to make use of ALL their customer data at the point where it matters the most – customer interaction. The solution was developed using java platform and backend integration with multiple applications and databases.

In-order to make sure that the solution should perform well enough to be used by the minimum of 1000 call center agents in simultaneous manner, performing different critical activities for calling customers. A proper performance testing was required before handing over to the real time users.

Motivation

The motivation for the performance testing project was an imminent expansion in terms of challenging projects and a need to explore the capacity limits of the new application for call center agents. The aim was to establish a baseline model for horizontal scaling of servers at the web, application server, and database tiers.

Client

telenor

Objectives

The objective of performance testing is to identify the scalability and stability of Telenor call center's new application Magic Screen by applying the load of minimum 500 users with the incremental approach.

To achieve the desired results the Xcelliti Solutions consultants determine the following objectives.

- Determine if the application complies with contracts, regulations, and service level agreements (SLAs).
- Detect bottlenecks to be tuned.
- Assist the development team in determining the performance characteristics for various configuration options.
- Provide input data for scalability and capacity-planning efforts.
- Determine if the application is ready for deployment to production.
- Determine Load and Stress points.

Our Approach

The first step that Xcelliti Solutions' Consultants took was to familiarize themselves with the system and its intended functionality. This was accomplished by talking to and working with development and testing team, by reviewing requirements documents, demo of the system and by performing manual testing activities.

Once the overall testing strategy had been established the following tasks were performed:

- A Test Plan was developed
- A system testing environment was set up that could be restored to its initial state after running test scripts.
- Industry best tools were used for conducting Automated Performance Testing.

The Results

The focused area of performance testing includes: (1) Transactions per Second (TPS); (2) Hits per Second; (3) Transaction Response Time; to determine the relative issues and behavior of application in different load modes that is beneficial in terms of:

- Enhanced real estate services, allowing hundreds of agents to work easily and deliver an efficient service to customers.
- Increased customers' satisfaction level, improving efficiencies in terms of response time and service level.
- Identification of a potential business risks and the Opportunity to address design flaws in the application.
- Identified behavior under various workload patterns including normal load conditions, excessive load conditions, and conditions in between Resource utilization in terms of the amount of CPU, RAM, network I/O, and disk I/O resources application consumes.

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