

Case Study

Performance Testing using HP LoadRunner ALM 11.50 Enterprise Version for Education Domain

SNAPSHOT

Solution Group:	Testing Services Group
Solution Offering:	Performance Framework Setup and Performance Test execution using LoadRunner 11.50
Project name or title:	HP LoadRunner ALM 11.50 Enterprise Version for Education sector

CLIENT PROFILE

Client is a Local Australian government department.

BUSINESS SITUATION

Client was managing applications for student enrolment using java and Oracle 10g. As part of ongoing maintenance database was being upgraded from Oracle 10g to Oracle11g. Client wanted to ensure that the performance of the enrolment application was not affected due to the up gradation of the database.

Adactin was involved in development of a performance scripts for a web Based application developed using Java technology and other legacy systems. The scope of performance was to develop end to end test scripts for the student enrolment process, student withdrawals, student transfers, cancellation of withdrawal.

SOLUTION

Adactin proposed and implemented performance execution process in 3 phases

Phase 1 – Planning and development of Performance scripts

- Load Runner 11.50 installation
- Knowledge transfer from BA team
- Prepare Performance Test plan
- Scripting Scenarios
- User Community Modeling
- Business Process Strategy preparation
- VUser Specification document

Phase 2 – Execute, Bottleneck Identification

- Project downtime notification
- Environment Preparation
- Site Administration Freeze
- Phased Backup of Project Database
- Execution of the scripts and results analysis
- Recommendation of fixes

Phase 3 – Re-execution of the Scenarios

- Project downtime notification
- Environment Preparation
- Site Administration Freeze
- Phased Backup of Project Database
- Re-execution of the scripts and results comparison
- Performance Summary Report preparation
- Handover

BENEFITS

Find below benefits of technical solution proposed to the client

- Traced the transactions taking long time to respond
- Found missing indexes on Database
- Code was optimized to reduce time taken to load page
- SQL queries were tuned
- Garbage Collection time reduced to free memory
- Heap size increased
- Client saw significant improvement in the transaction response time with the implementation of changes when compared the results from the first round of execution with the second round.

TECHNOLOGY STACK

- OS – Windows2008 Server SP2
- Database – Oracle 11g and Oracle 10g
- Language – Java, XML, HTML
- Performance Tool – HP LoadRunner ALM 11.50 Enterprise version

ASSISTANCE PROVIDED BY CLIENT RESOURCES

- Assistance provided by client's DBA team in backing up existing production server data
- Client's Windows Server team had setup Performance test environment
- Controller and Load Generators were set up for performance testing by the Client's Infrastructure team

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