The Second International Workshop on Load Testing of Large Software Systems (LT 2013)

LT 2013
Load Testing Large Scale Software Systems

http://lt2013.eecs.yorku.ca/

ZhenMing (Jack) Jiang, Marin Litoiu
York University, Canada

Paul Vytas
IBM Toronto Lab, Canada

Ahmed E. Hassan
Queen’s University, Canada
(Ultra) Large Scale Software Systems: Millions of Users, Billions of Transactions

- Over 1 billion page views per day
- 44 billion SQL executions per day
- 8 billion minutes online everyday
- Over 1.2 million photos a sec at peak
Rapid Growth and Evolution

Note: Instagram switched to # of active users since 01/07/2013.
100M active users as of 02/26/2013
High Availability and Reliability

PayPal global outage for 1 hr. $7.2 million lost in commerce.

Twitter offline for 2 hrs. Affected 45 million users.

Gmail outage for 2 hrs. Affected 20 million users.
Most field problems for large scale systems are rarely functional instead they are load-related.
Load Testing

Mimics multiple users repeatedly performing the same tasks
Take hours or even days
Workshop Agenda*

10:00 - 10:05 **Welcome & Introductions**
10:05 - 10:30 - *AcmeAir: Lessons learned from a large scale cloud deployment*
   Paul Vytas and Gary Zeng, IBM Canada
10:30 - 10:45 **Coffee Break**
10:45 - 11:40 - *Load testing for performance*
   Matt Emmerton, IBM Canada
   - *Automatic Detection of Performance Deviations in Load Testing of Large Scale Systems*
   Haroon Malik, Queen’s University, Canada
11:40 - 12:40 **Panel Discussion**
12:40 - 13:00 **Workshop Wrap-up and LT 2014**
Panel Discussion

• Longer questions for the technical talks
• Thought-provoking topics:
  – What are the current burning issues in load testing research? (industrial v.s. academia)
  – Why has load testing not getting many research/industry attention, even though it’s such an important topic?
  – Do people only consider load testing after load-related issues occurred in the field?
  – What is load/stress/performance/reliability testing? Is it time to consolidate these terms?
  – Do we need an industry partner to conduct research on load testing?
  – “Simpler” workload/benchmarking suites