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Software Testing in the Trenches

NLIT Summit, May 2016
Lucille Forster, 09517

Agenda for Testing in Trenches

- Why are you here?
- Who does testing?
- Deadline problems, anyone?
- What do you test and how?
- Metrics
- Trials, tribulations and troubleshooting
- Closing discussion



Why are you here?

- Who are you?
- What's your background?
- What do you want from this session?



Who does testing?

- Developers?
- Dedicated testers assigned to team?
- Centralized test teams?
- Other? What works for you?



Deadline Problems, Anyone?

- Identify tasks
- Collect resources
- Negotiate dates
- Set expectations
- Time OK? (Ha!)



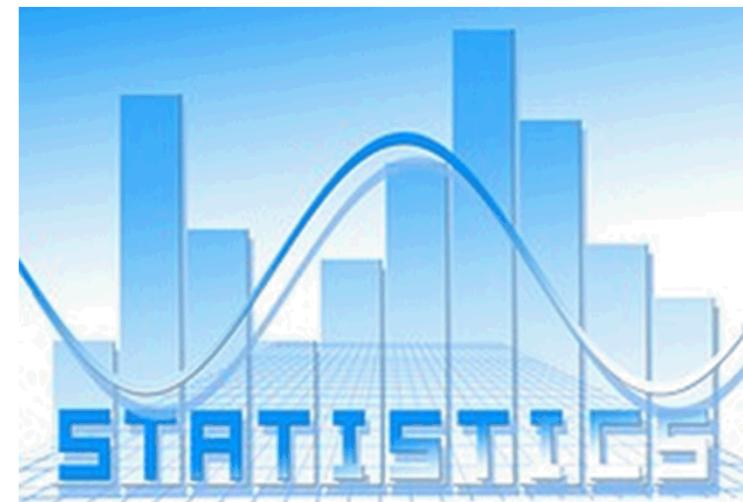
What do you test and how?

- Exploratory
- Performance (load & stress)
- System & Integration
- Requirements
- Regression
- User Acceptance
- UX
- Security
- Other?



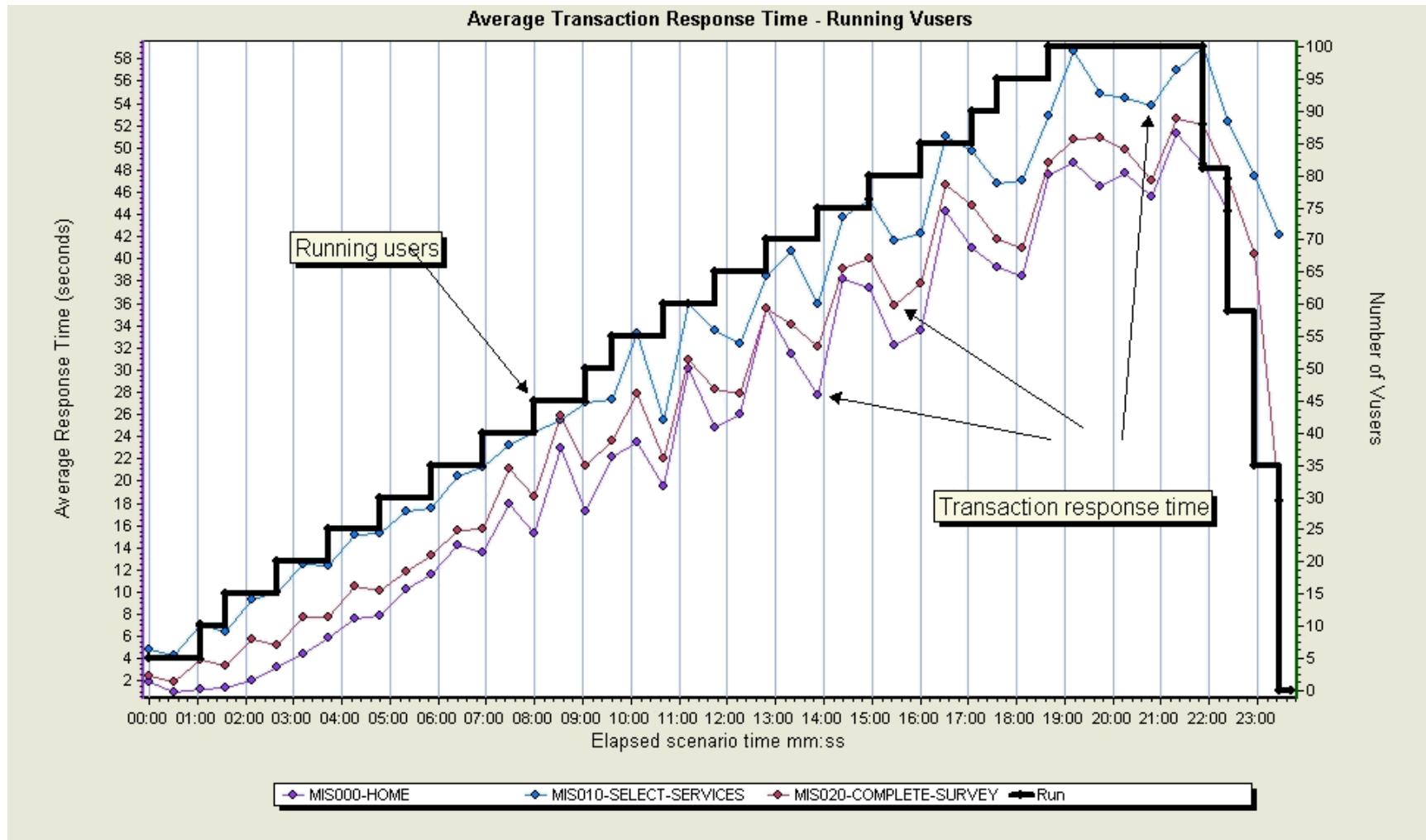
Industry Metrics*

- **\$59.5 billion** lost per year due to software defects.
Source: 2002 federal study.
- **\$100 billion** lost annually in U.S. due to cybercrime, global total is \$575 billion. Source: 2014 McAfee report.
- 43% of software projects cost more, take longer, or do less; 18% of software projects fail. Source: 2013 Chaos Manifesto – The Standish Group

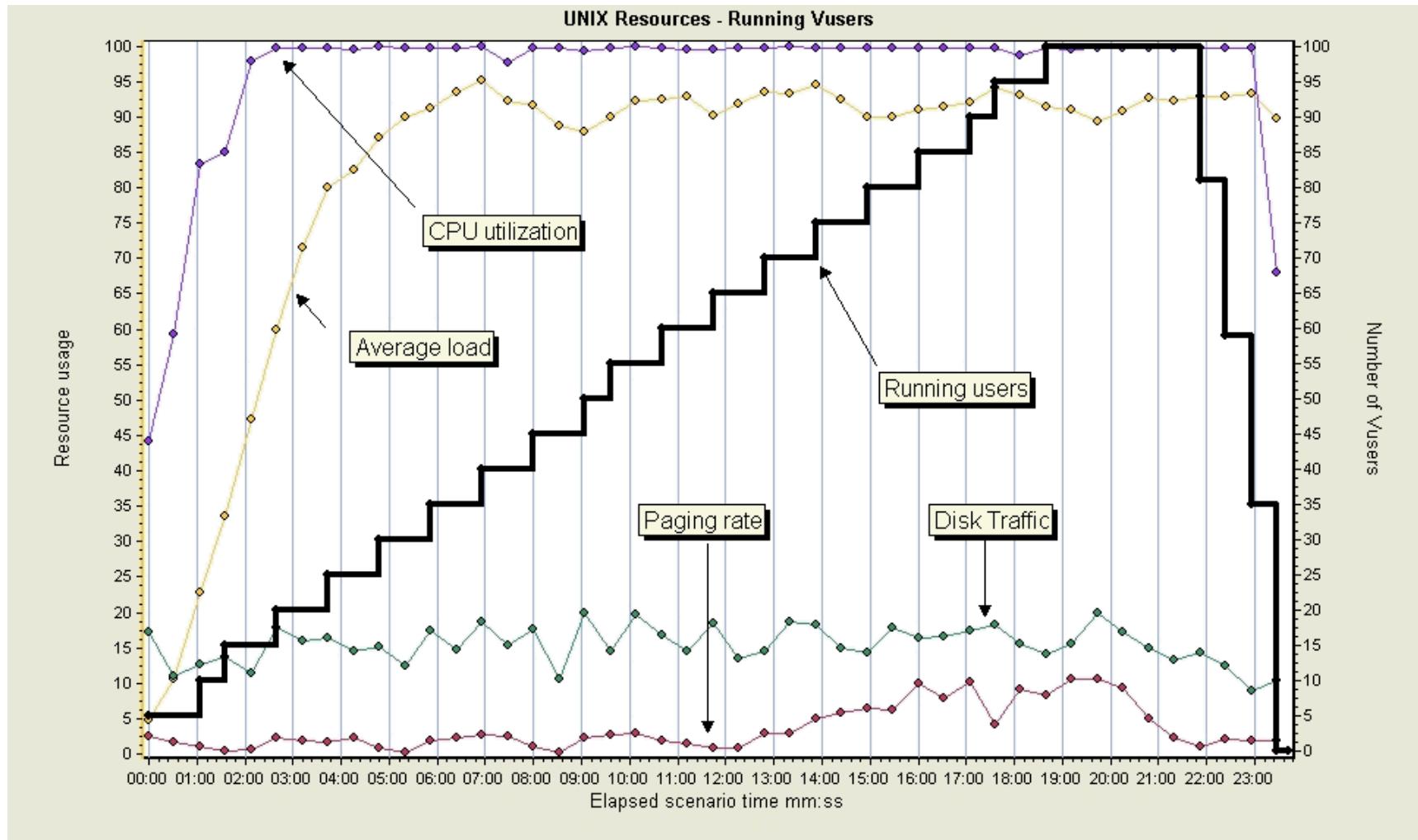


*Links available on request

Sample Test Metrics: Response Time



Sample Metrics: Server Resources



Case Study #1

- Scenario: In-house software added COTS database access tool during upgrade.
 - Problem: Performance test prior to deployment encountered errors and slow response time as load increased.
 - Troubleshooting: Team isolated COTS tool and tested it separately. Stand-alone COTS software showed same behavior.
 - Solution: Developers added test for network timeout when COTS tool was accessed. When timeout occurred, developers provided graceful exit with message to user. New test found good response time and no errors under load.

Case Study #2

- Scenario: In-house software added new filter and editing features. Initial testing showed no problem, so software was deployed.
 - Problem: One tab within the web application would time out when filter was cleared. Clearing filter displayed all data. Clearing filter was tested, but not on problem tab.
 - Troubleshooting: Team rolled back software, did more testing, and found a coding problem.
 - Solution: Developers fixed coding problem. New test found good response time and no timeout errors even with filters cleared.

Role Play / Discussion Scenarios



» Your chance to be a star!

- Scenario #1: New software does not meet all requirements. Should it be deployed? What roles should be involved? What subjects should be discussed? Pick a role and talking points.
- Scenario #2: Your choice!

Closing Discussion, Q&A

Your experience:

- What tools and practices work for you?
- What lessons can you share?
- What are your testing issues?
- Other?
- Your Questions?



Going forward: Enjoy Albuquerque and the remainder of the conference!