BlazeMeter

PERFORMANCE ENGINEERING APPROACHES & ANALYZING RESULTS

PRESENTED BY REBECCA CLINARD

CMG imPACt 2017

INTRO: ABOUT ME…

Active in the performance engineering field since 2000.

Things you should know about ….

I am Lazy (Efficient).

I am Honest (Data Driven).

I am Curious (Mad Investigator of root causes).

I am Collaborative (Share helpful information).

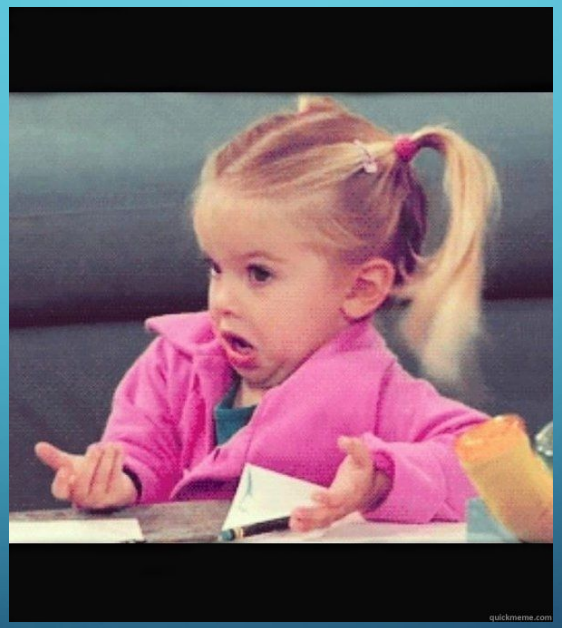
I am love Performance Engineering Data Science!

Why Choose to Leverage Open Source Testing?

1. LEGACY TOOLS CREATED THE COE BOTTLENECK
2. AGILE MEANS ELIMINATING HANDOFFS & BOTTLENECKS
3. WHY OPEN-SOURCE PERFORMANCE TESTING?
4. COE 2.0: FACILITATING SHIFT LEFT/DEMOCRATIZATION
5. GETTING STARTED WITHOUT REINVENTING THE WHEEL

A BLOG I WROTE TITLED: PERFORMANCE ENGINEERING ROOKIE MISTAKES WENT VIRAL…

DID YOU TAKE THE APPLICATION DOWN AGAIN?



WHO ME ?!?$%&@$

PERFORMANCE ENGINEERING VS. PERFORMANCE REPORTING

Reporting

Data: Averages and Percentiles
Quantify Scalability
Meets/Exceeds SLA Requirements

Performance Engineering

Data: Raw and Absolute
Analysis of Results
Isolate Scalability Limitations
Identify Root Causes

ANALYZING PERFORMANCE TESTS RESULTS IS A HUMAN PROCESS…

LOAD TOOLS

Create automated load scripts, generate distrubuted load, collect KPI metrics, create graphs, generate reports.

HUMAN MIND

Determine data and KPI relevancy, interpret, make educated decisions.

REAL USER VS. ENGINEERING TRANSACTIONS

- Population of users are created combining load scripts which represent different types of users: Shoppers, Buyers, etc.

- Engineering transactions target a certain tier of the deployment.

THE LOAD TOOL KPI'S – FRONT END

- User Load
- TPS
- Response Time
- Error Rates

THE HUNT FOR MONITORED KPI'S

- Hit Rates
- Free Resources

DETERMINE MONITORED KPI RELEVANCY

- Slow Ramp load test
- Ignore response times, Concentrate on throughput
- Visualize direct or inverse relationships
- Toss the KPI's which are not relevant

WHAT SPINS UP?

Catch the “unanticipated” resources … often valuable KPI’s

CLEAR THE CLUTTER

- Reduce the number of transactions to analyze for scalability
- Choose just 3 business transactions
- Keep all the engineering transactions

DON'T JUMP THE GUN

- It's actually quite hysterical to watch the stakeholders while they are watching an in-flight performance test …. LOL
- Relax, no need to analyze the test until After the results are aggregated.
- Design a load test to answer a question and let the tool do it's job.

REPRODUCIBLE RESULTS

- The magic number is 3
- Only need to inspect the average TPS
- Spend your valuable time wisely rather than chasing red herrings

TARGETED WORKLOADS

- No User Load
- Single User Load
- Concurrent User Load

- HALF/DOUBLE = Methodical

VISUALIZE A PERFECTLY SCALABLE DEPLOYMENT

- Knowing what a perfectly scalable applications looks like allows you to spot anomolies quickly.

- Prove/disprove theories – experimental load testing

KPI'S & ROOT CAUSES

- Optical illusions
- Deviations and Trends
- Plateaus are King, Minimums are Real
- First occurring monitored KPI which has a plateau
- Differentiate between symptoms and root causes
- Race conditions

ENGINEERING TRANSACTIONS

- Lack of Monitoring
- Name according to the tier: WEB, APP, DB
- Graph out in Correlation to load
- Observe first occurring degradation
- Investigation

GRANULARITY BRINGS CLARITY

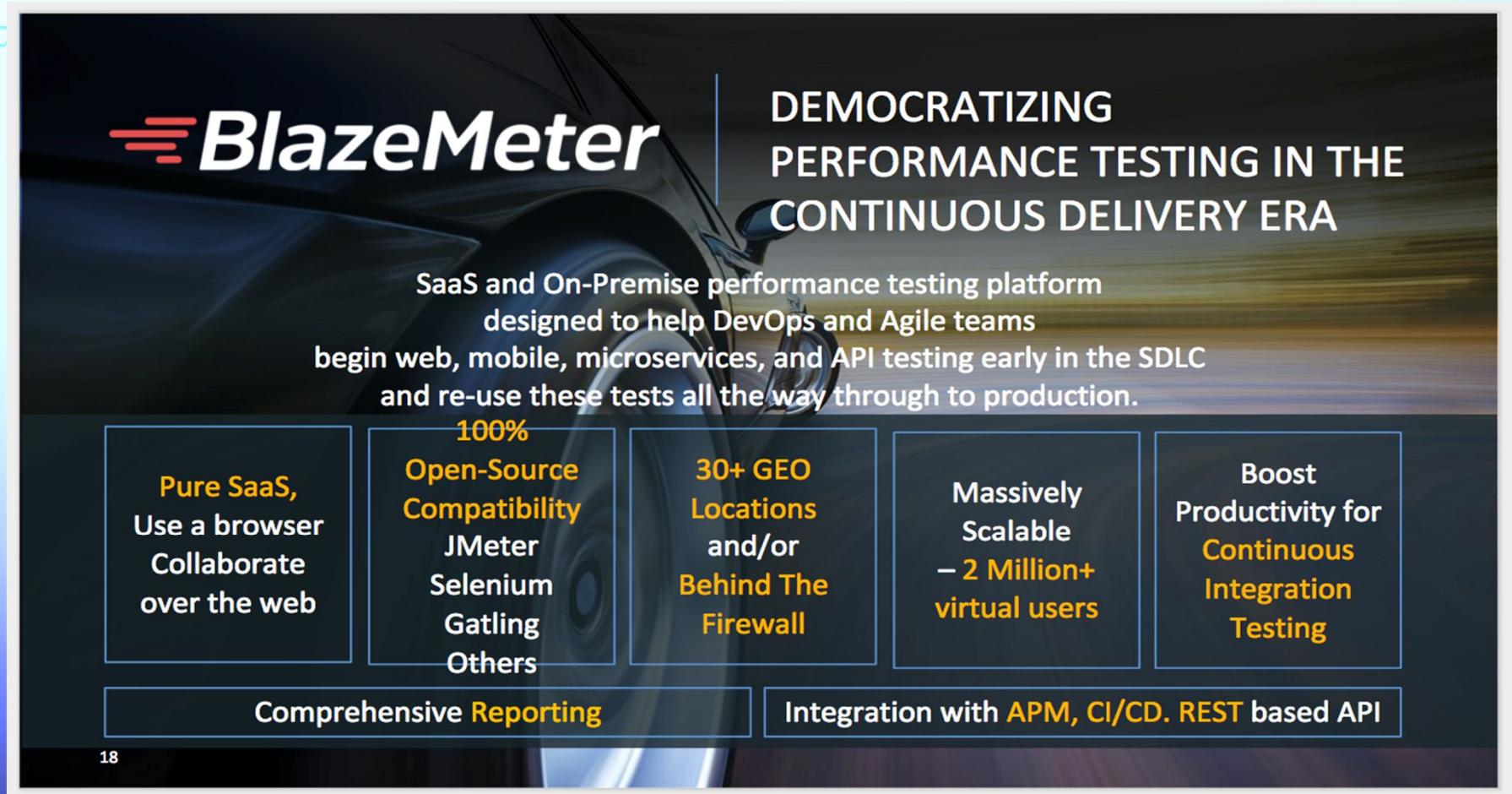
- Plateaus disguised as peaks
- Tool resolution
- Run longer test durations

SUMMARY

Most important task on any performance project – find and isolate the next limiting bottleneck.

No need to eliminate it UNLESS the application scale to the target workload.

But workloads do change…and you want the valuable information to be Ready!


BlazeMeter
DEMOCRATIZING PERFORMANCE TESTING IN THE CONTINUOUS DELIVERY ERA
SaaS and On-Premise performance testing platform
designed to help DevOps and Agile teams
begin web, mobile, microservices, and API testing early in the SDLC
and re-use these tests all the way through to production.
Pure SaaS,
Use a browser
Collaborate
over the web
100%
Open-Source
Compatibility
JMeter
Selenium
Gatling
Others
30+ GEO
Locations
and/or
Behind The
Firewall
Massively
Scalable
– 2 Million+
virtual users
Boost
Productivity for
Continuous
Integration
Testing
Comprehensive Reporting
Integration with APM, CI/CD. REST based API
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NEXT STEPS

- Create Free BlazeMeter Account – www.blazemeter.com
- Performance Testing Blog – www.blazemeter.com/blog
- Webinar Recordings, White Papers & More – www.blazemeter.com/resources
- For more questions, and to discuss pricing plans - sales@blazemeter.com

THANK YOU!

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