O'REILLY®
Velocity
Web Performance & Operations
CONFERENCE

velocityconf.com

Performance Monitoring, Measurement and Troubleshooting of Large Scale Sites @Yahoo!

大型网站性能监控、测量和故障排除@雅虎

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Make Things Go Even Faster

A day @ work – finance.yahoo.com

- #1 in US
- ~1.6+ Billion Page View monthly
- 59 Million Unique Users

A day @ work – finance.yahoo.com

- monitoring alert
- troubleshoot
- find root cause
- result? better user experience

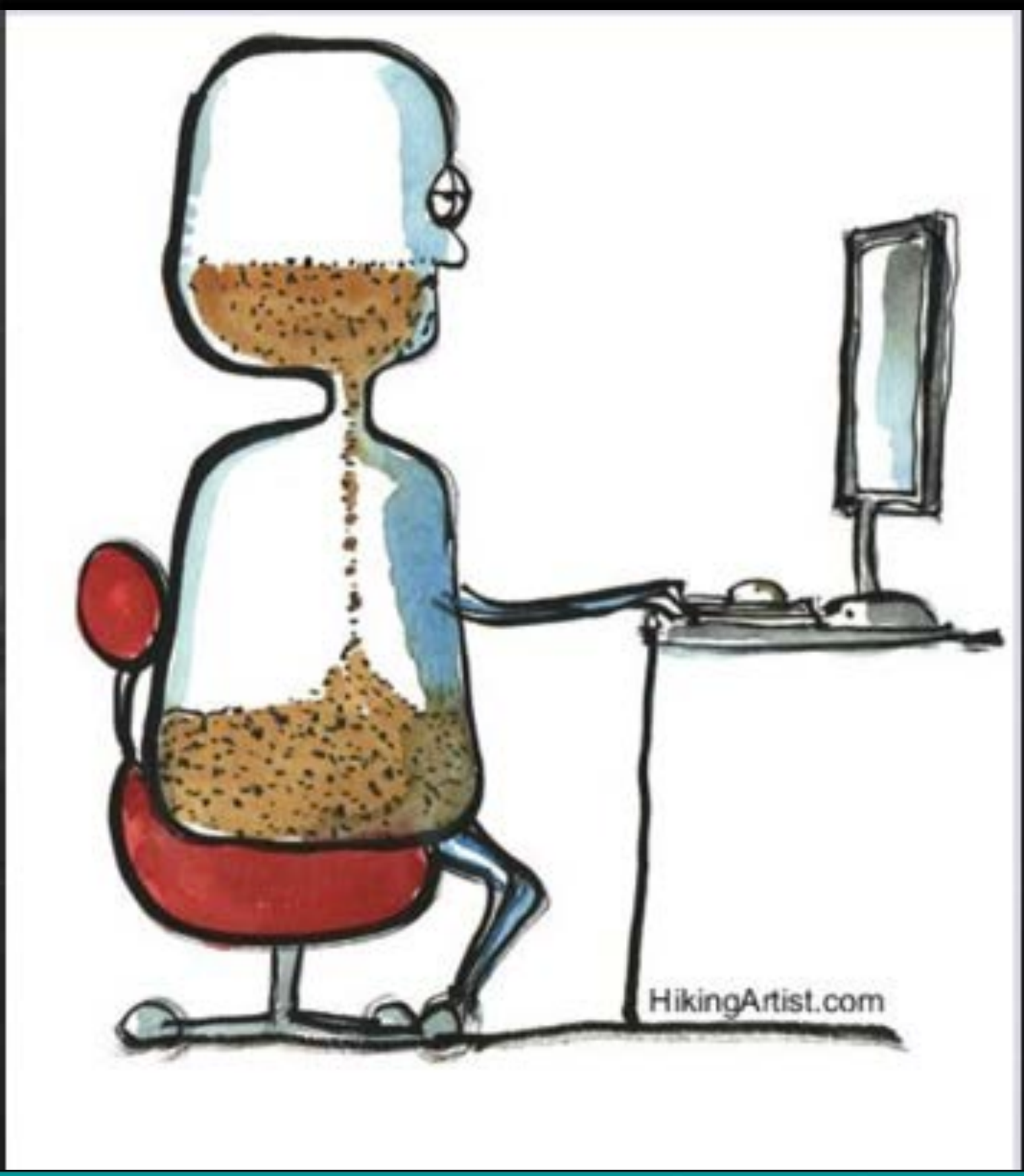
Performance Monitoring & Measurement

Boomerang

open sourced on Github

https://github.com/yahoo/boomerang/

image source: http://detectovision.com/pics/boomerang-art.gif



Time that user thinks it took to load a page.

image source: hikingartist.com

How does Boomerang work

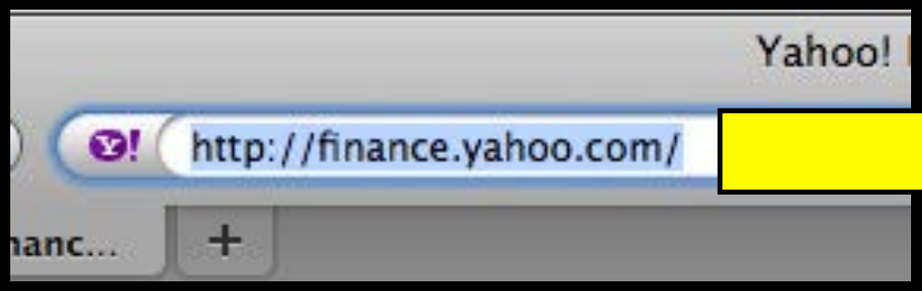
it’s JavaScript beacon

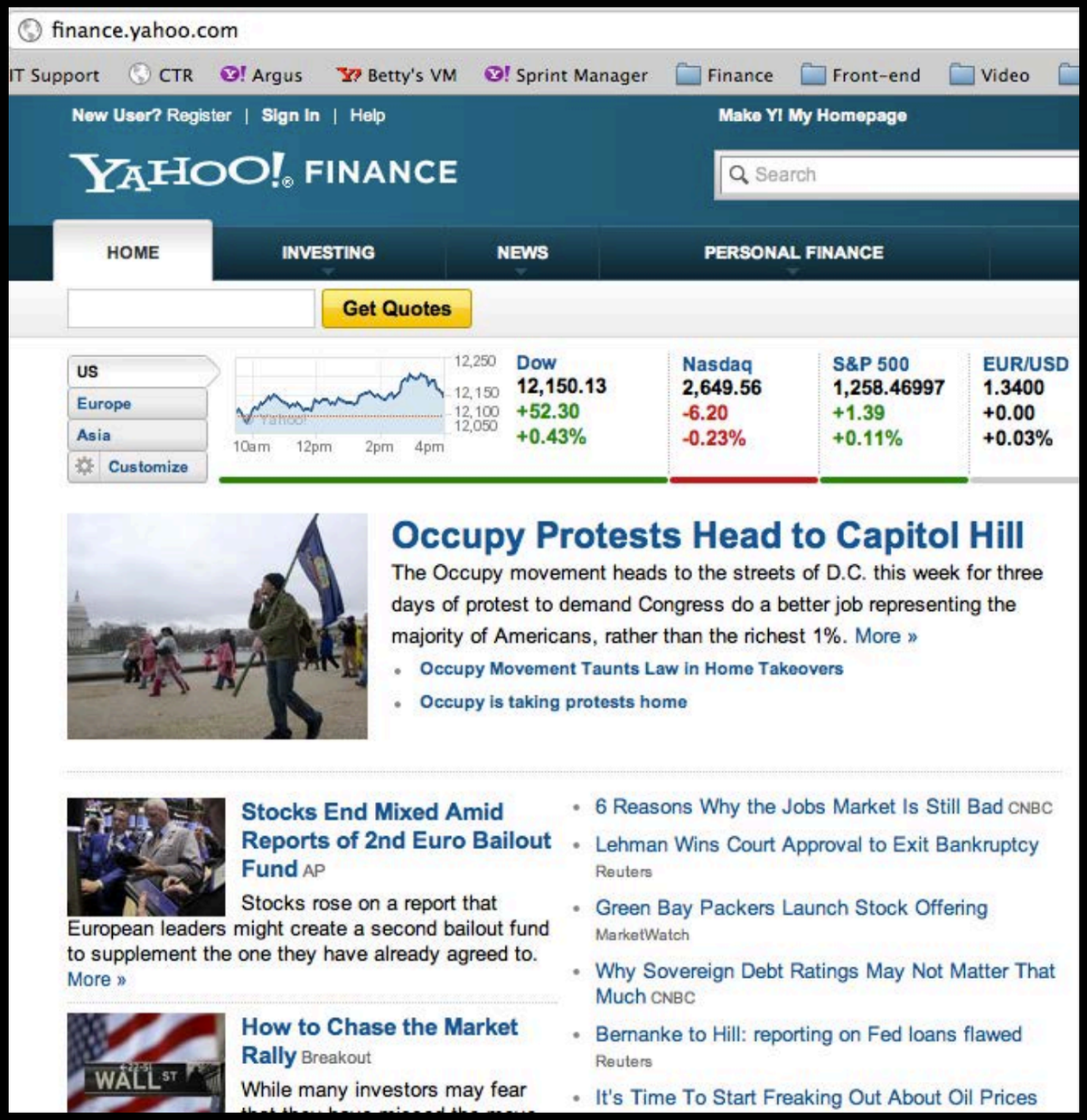
How does Boomerang work

t_start = user initiate a resource request

t_done = that resource is completely available for user to interact with

How does Boomerang work

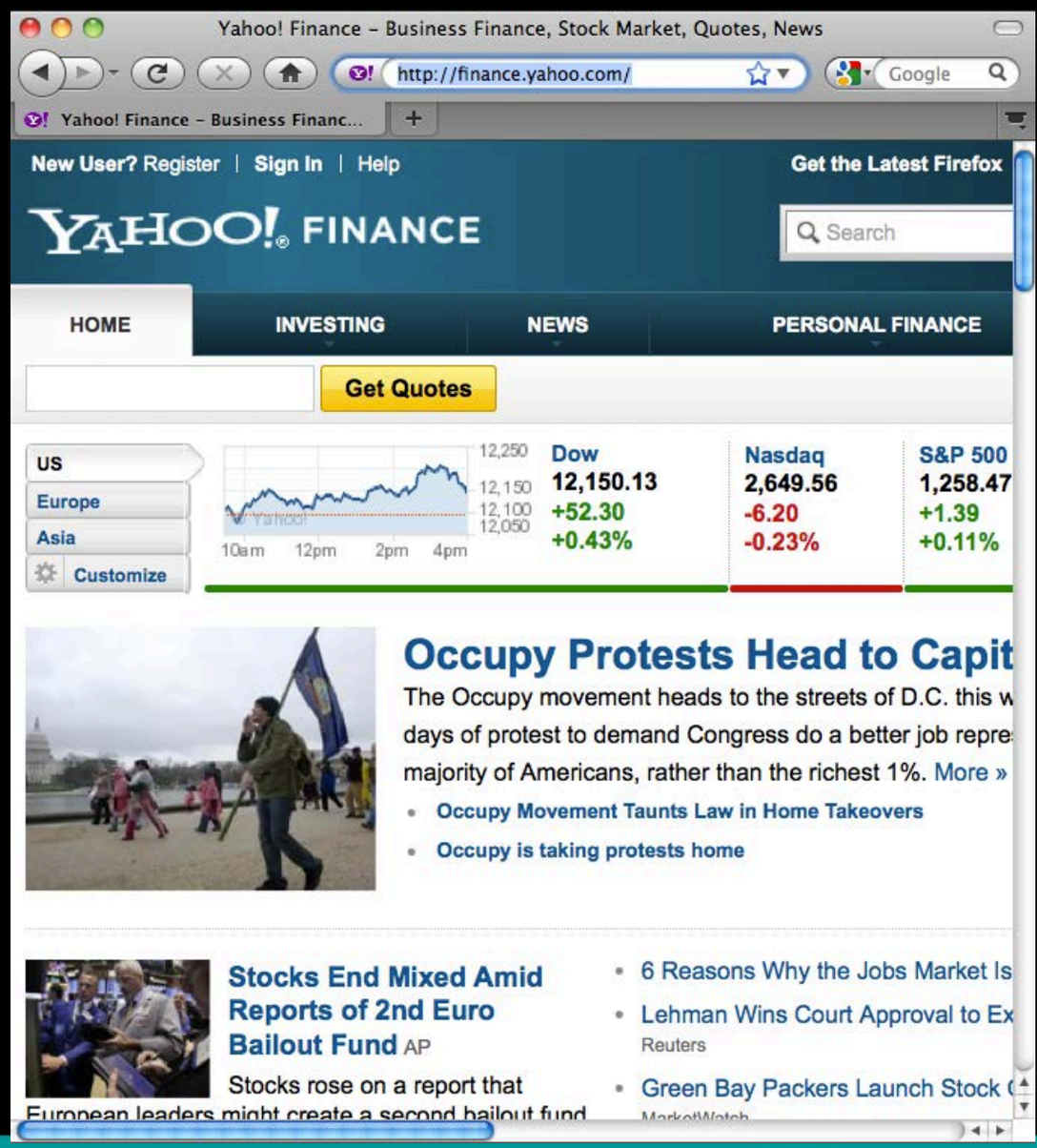




How does Boomerang work

window.onbeforeunload

window.onload



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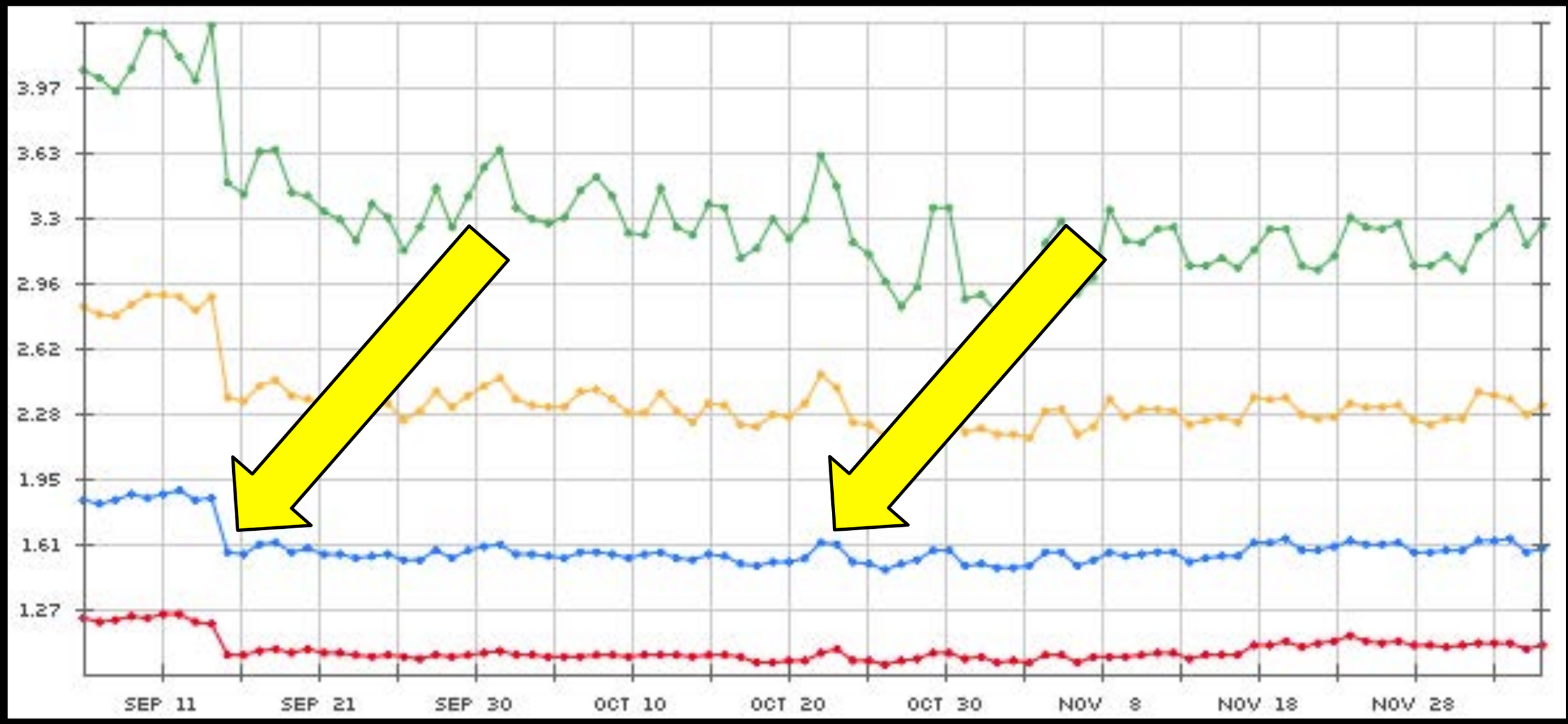
What does Boomerang measure

- a page's perceived performance
- perceived performance of content loaded dynamically
- user's bandwidth
- page load time
- random sample
- browser WebTiming info
- page component performance break down

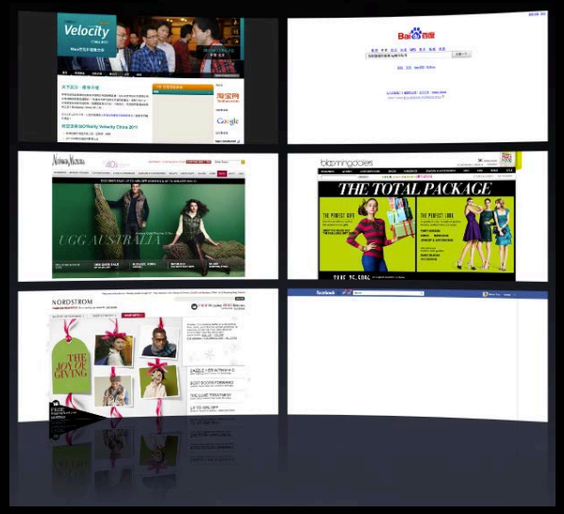
Sample trend view graph



The System

- Beacon collection
- Beacon harvesting & aggregation
- Data storage
- API
- Dashboard UI

End User



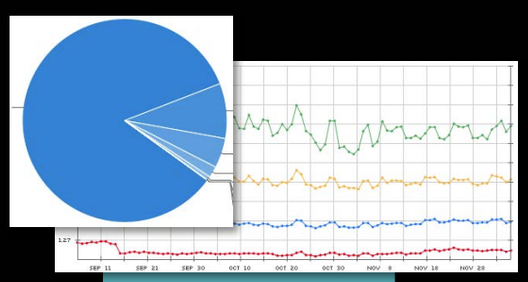
Boomerang inserted to page

Boomerang Beacon Collection & Filtering

Data Aggragation

Result Storage

API



Dashboard UI

A day @ work – finance.yahoo.com

- monitoring alert
- troubleshoot
- find root cause

Performance Troubleshooting - tools

- YSlow
- DynaTrace (for ajax app.)
- WebPageTest (private instance)
- mobitest (for mobile)

Performance Troubleshooting - YSlow

	RT	yslow w ad	yslow w/o ad
Landing Page	4.643	F (58)	B (89)
Subpage A	3.312	C (74)	A (99)
Subpage B	2.63	C (77)	A (96)
Subpage C	3.09	D (67)	A (95)
Subpage D	3.02	C (74)	A (92)

Performance Troubleshooting - WebPageTest

WEBPAGETEST
PRIVATE INSTANCE

YAHOO!

HOME | TEST RESULT | TEST HISTORY | DOCUMENTATION | ABOUT

Web Page Performance Test for
yahoo.com

From: Sunnyvale, CA USA - IE9 - **DSL**

Page Speed 1.9 Score: **89/100** — Need help improving?

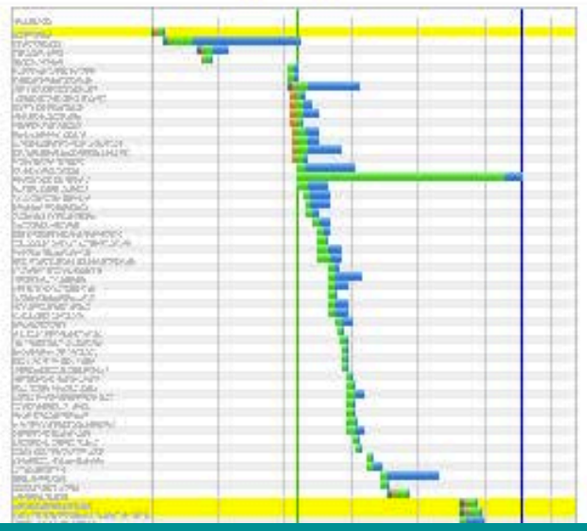
F	A	A	C	A	✓
First Byte Time	Keep-alive Enabled	Compress Text	Compress Images	Cache static content	CDN detected

Summary | Details | Performance Review | Page Speed | Content Breakdown | Domains | Screen Shot

Re-run the test

Raw page data - Raw object data
Export HTTP Archive (.har)

	Load Time	First Byte	Start Render	DOM Elements	Document Complete Time	Document Complete Requests	Document Complete Bytes In	Fully Loaded Time	Fully Loaded Requests	Fully Loaded Bytes In
First View	5.567s	0.609s	2.177s	1427	5.567s	59	413 KB	6.318s	72	477 KB
Repeat View	1.583s	0.460s	1.462s	1432	1.583s	15	272 KB	3.803s	20	304 KB

	Waterfall	Screen Shot
First View (5.567s)		

Performance Troubleshooting – other factors

- any server outage?
- any production push?
- data center change?
- CDN server SLA miss?

YSIOW

BETA

Announcing…

command line

The YSlow Biography

Coming next week on Performance Calendar: http://calendar.perfplanet.com/2011/

coming soon

JSON in the cloud support

coming soon

open source on Github

coming soon

multi language

getyslow.com

questions?

http://tinyurl.com/bettytso

Yahoo! Performance Group
http://y.ahoo.it/performance

Thank you!

谢谢