Introduction To Web Performance



May 3, 2011

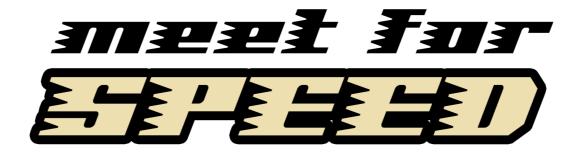


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NY Web Performance Meetup



~925 members



What is Web Performance?

Performance is how fast

your site works for each end user

Update your SLAs

NOT how many users it can serve (Scalability)

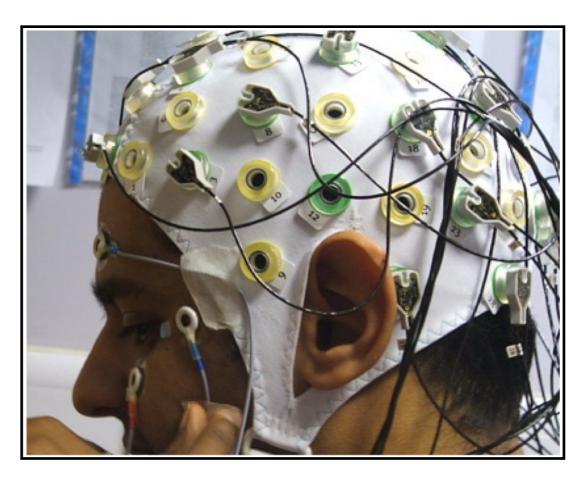
NOT how often it's down (Reliability)

Why Web Performance?

User experience

"participants had to concentrate up to 50% more"

"greater agitation and stress"

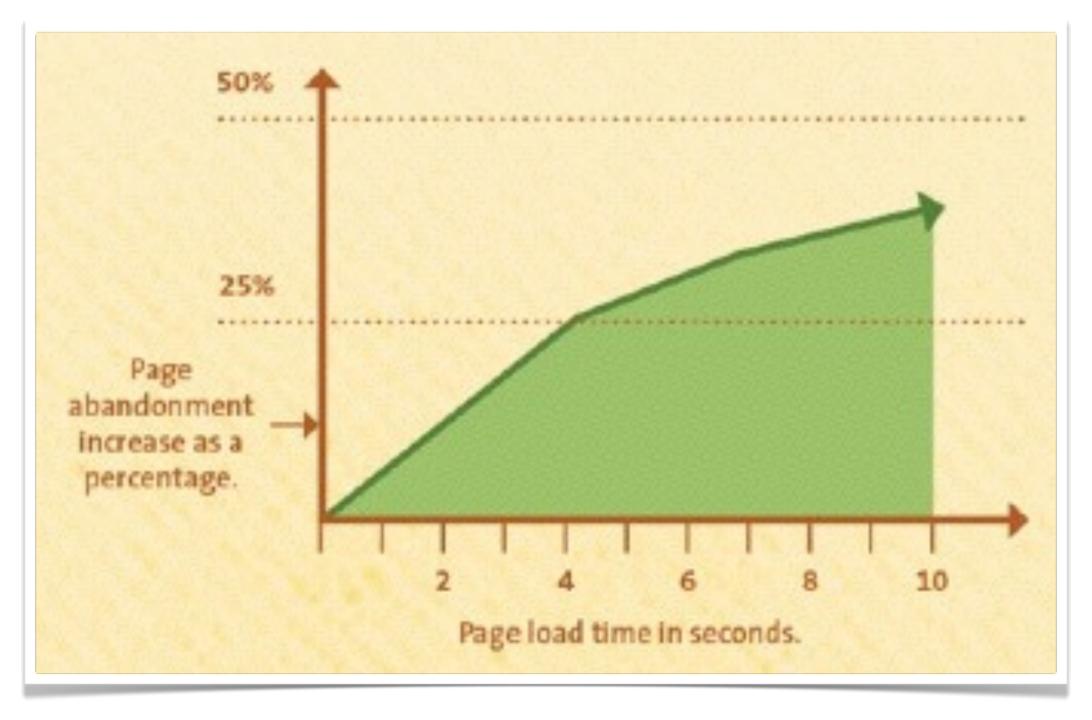


Web user connected to EEG

"40% will go to a rival web site, 37% will abandon"

Web Stress. A wake up call for European business. Foviance on behalf of CA http://www.ca.com/Files/SupportingPieces/final_webstress_survey_report_229296.pdf

Abandonment Rate



How Loading Time Affects Your Bottom Line. KISSmetrics http://blog.kissmetrics.com/loading-time/

Why Web Performance?

\$\$\$ Money **\$\$\$**

Shopzilla +7-12% conversions!
-50% operation costs

• +15% (+60M) downloads for Firefox. (-1 sec => +2.7% downloads)

- Slowness is sticky (Google and Microsoft)
- SEO: Google uses site's speed in ranking

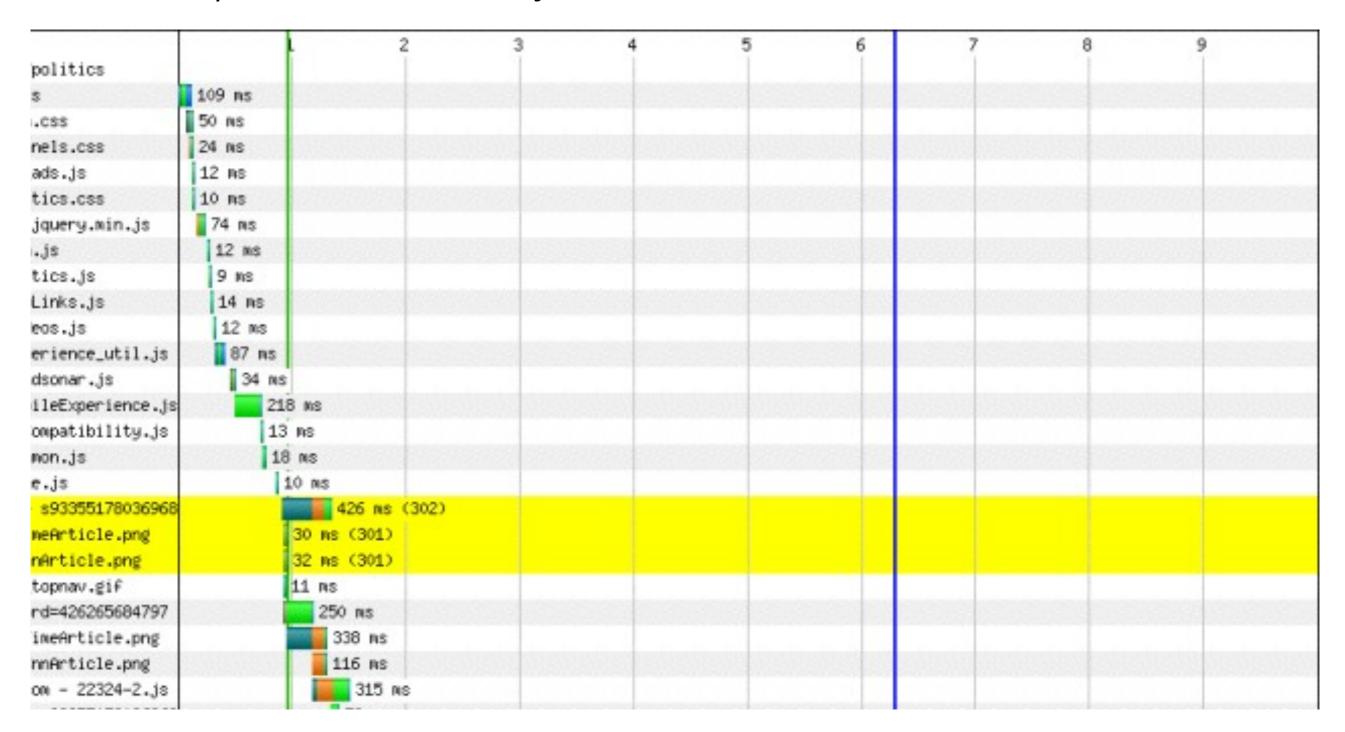
Where to look?

88 requests, **6.344s** only **0.968s** on backend = **just 15%**

TRANSFER TIMELINE 6s /jquery-1.2.6.min._V253690767_.j /n2CoreLibs-combined-n2v1-3283 /n2CoreLibs-combined-core-39582 /n2CoreLibs-combined-extended-4 /search-js-search_suggest-31852. /navbarCSSUSSprite-navbarUSSpri /navPackedSprites_v4._V2368402 /navHoriSprites_v1._V242796526_ /transparent-pixel._V42752373_.g /popover-border-tl._V264586600_ /popover-border-tr._V264586600_ /popover-border-br._V264586601 /popover-border-r._V264586600_. /popover-border-t._V264586600_. /navbarJS-navbar-12454._V25161 /popover-trans._V264586600_.gif /popover-border-b._V264586601_ /popover-border-l._V264586600_. /SWMS04-prime-021909._V24855 /giftcard-envelope-gno._V250128 /amznius.gwiatf;sz=300x250;bn= /popover-border-ctr._V264586603 /car-elec-store-300x250_100808.j /AHT48x48._V235430436_.png

Where? Front end!

151 requests, 6.3s, only 0.1s on backend - less then 2%



Page Statistics

2003

2009

Size:

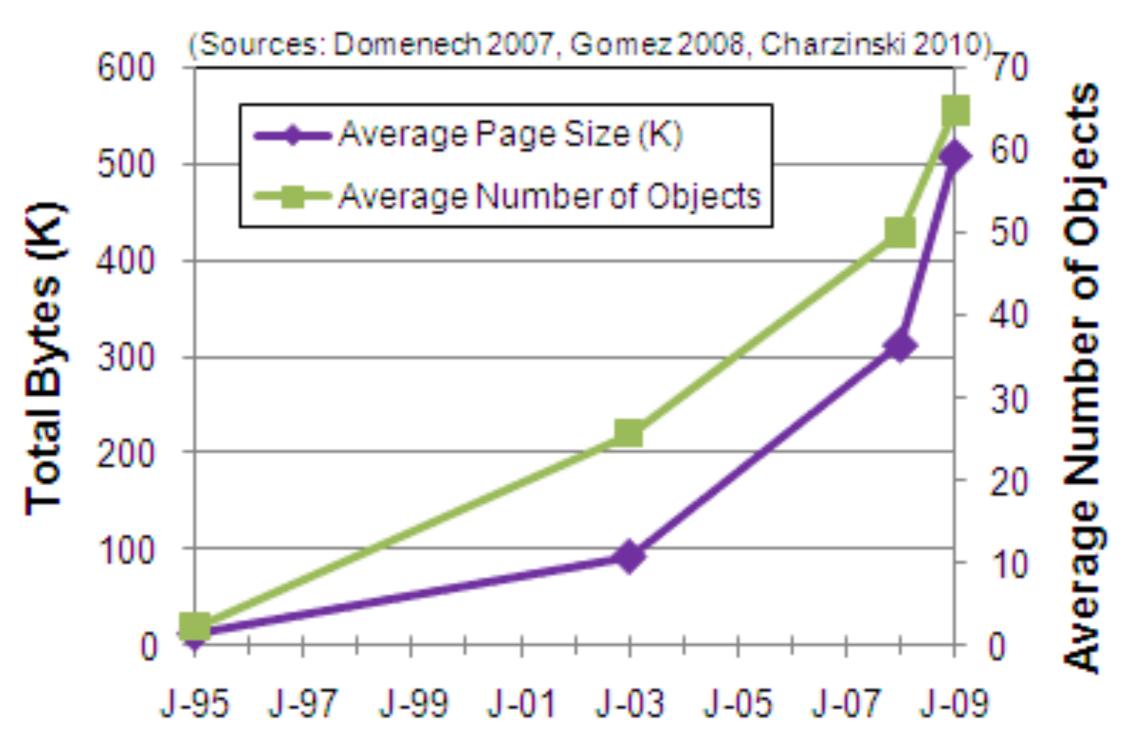
93.7K 507K

Objects:

25.7

64.7

Growth of Average Web Page Size and Number of Objects



Average Web Page Size Quintuples Since 2003 Andrew King (websiteoptimization.com)

Page Statistics

- Load Time: +0.533 s
- Time to first byte: +0.117 s
- Time to start render: +0.179 s
- Page Size: +48 KB
- Requests: +4
- Connections: +1
- DNS Lookups: +1

in 1 year

2009-2010

What to work on?

Back-end

- Cache subsystem & data lifetime policies
- Web farm setup & web server configuration
- Build ("compilation") processes
- (SQL) query optimization for real-time data

What to work on?

Front-end

- JavaScript deferral (3rd party and own code)
- Utilizing browser cache
- Payload reduction (fewer & smaller requests)
- Progressive enhancement

