



PERFORMANCE OF THE WEB IS UNDER YOUR CONTROL

Alain H elaili – alain.helaili@compuware.com



COMPUWARE APM
DYNATRACE | GOMEZ

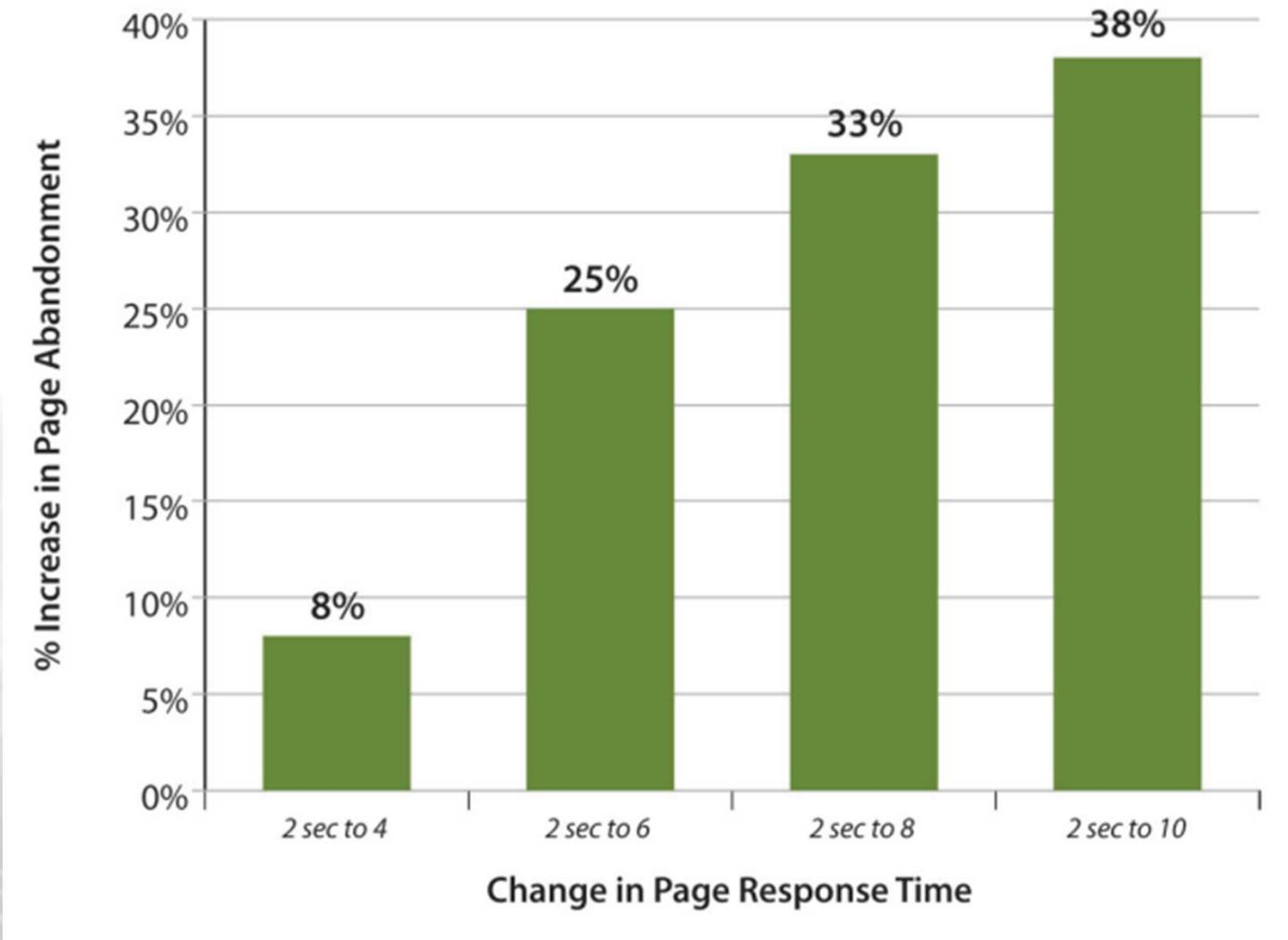
DYNATRACE

INTERNATIONAL
SOFTWARE DEVELOPMENT
CONFERENCE

gotocon.com

Why should we
really **care** about
the **performance** of
our web site?

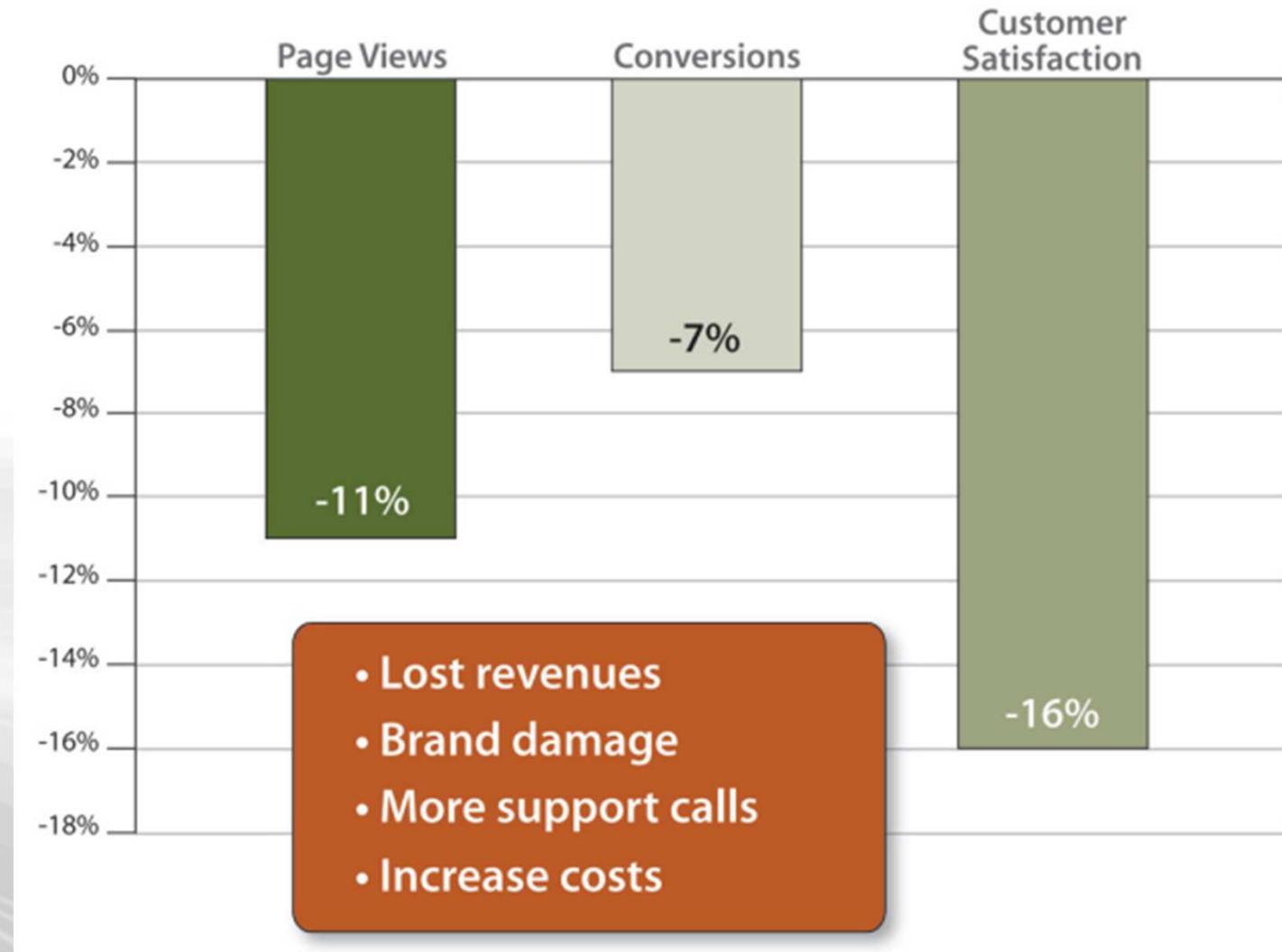
Add couple seconds...



Source : http://www.gomez.com/pdfs/wp_why_web_performance_matters.pdf



... but even one second matters



Source : http://www.gomez.com/pdfs/wp_why_web_performance_matters.pdf



Why Web Performance Matters

bit

second

50% reduction in

Google™ Webmaster Central Blog

Official news on crawling and indexing sites for the Google index



Go

Using site speed in web search ranking

Friday, April 09, 2010 at 11:00 AM

Webmaster Level: All

You may have heard that here at Google we're obsessed with speed, in [our products](#) and [on the web](#). As part of that effort, today we're including a new signal in our search ranking algorithms: [site speed](#). Site speed reflects how quickly a website responds to web requests.

Speeding up websites is important — not just to site owners, but to all Internet users. Faster sites create happy users and we've seen in our [internal studies](#) that when a site responds slowly, visitors spend less time there. But faster sites don't just improve user experience; recent data shows that improving site speed also [reduces operating costs](#). Like us, our users place a lot of value in speed — that's why we've decided to take site speed into account in our search rankings. We use a variety of sources to determine the speed of a site relative to other sites.

Search x

Archive

Site Feed

Google™

136K readers
BY FEEDBURNER

Select Language

7-12

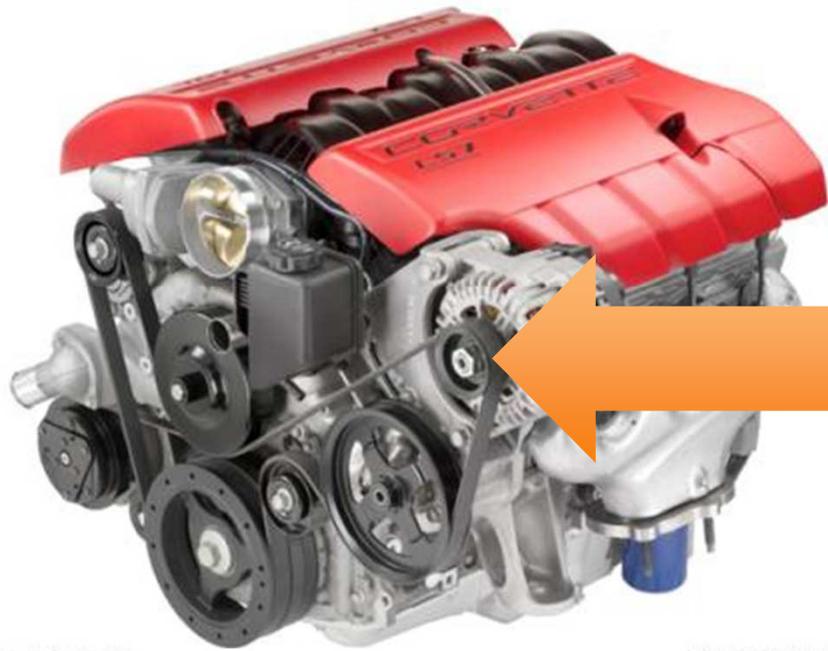
50% reduction in hardware costs*

Source: Steve Souders @ Velocity Conference 2009

<http://radar.oreilly.com/2009/07/velocity-making-your-site-fast.html>



How **fast** is your
web site?

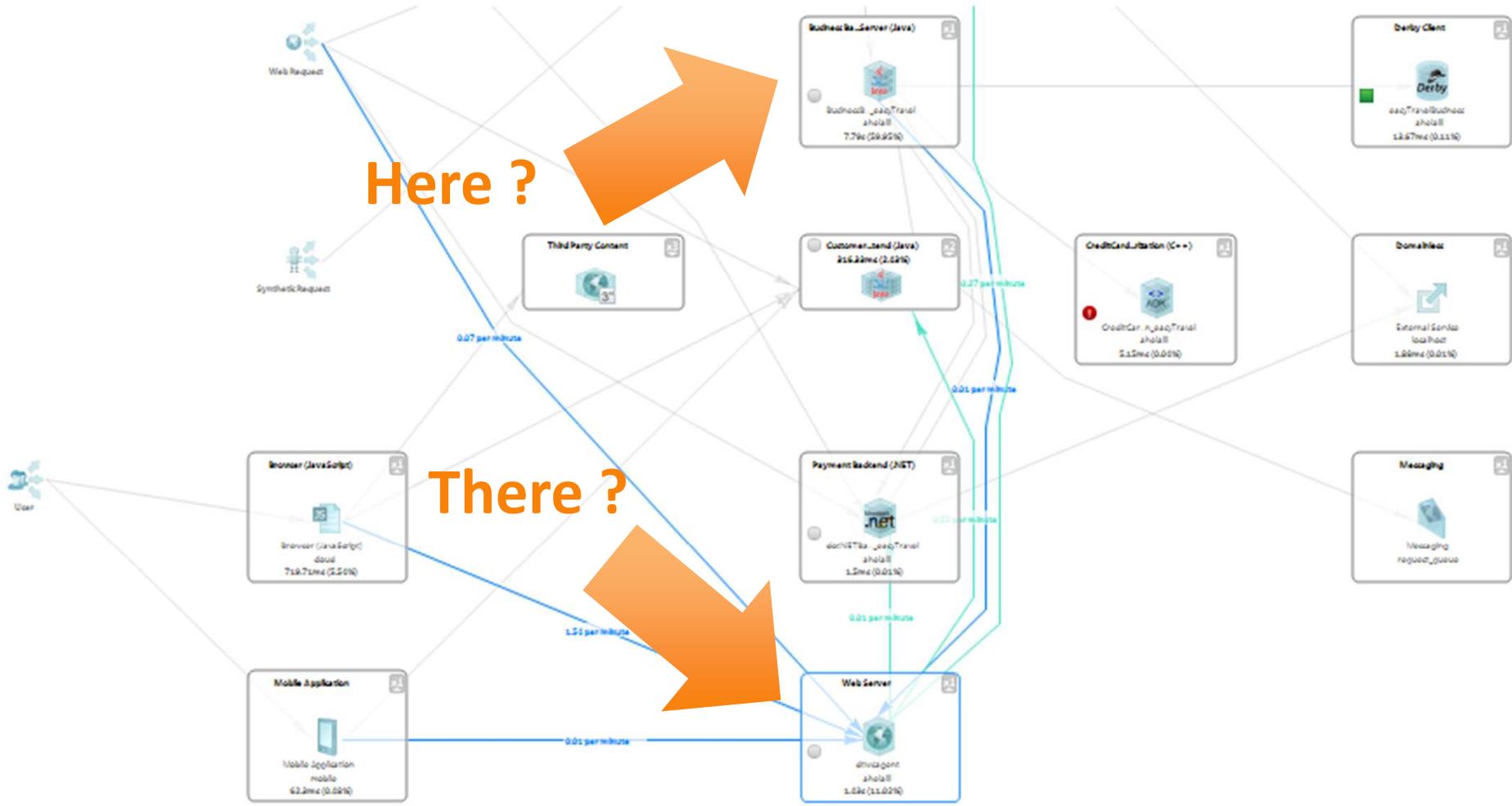


Chevrolet Corvette 206

2010 "LS7" 7.0L V-8 (LS7)

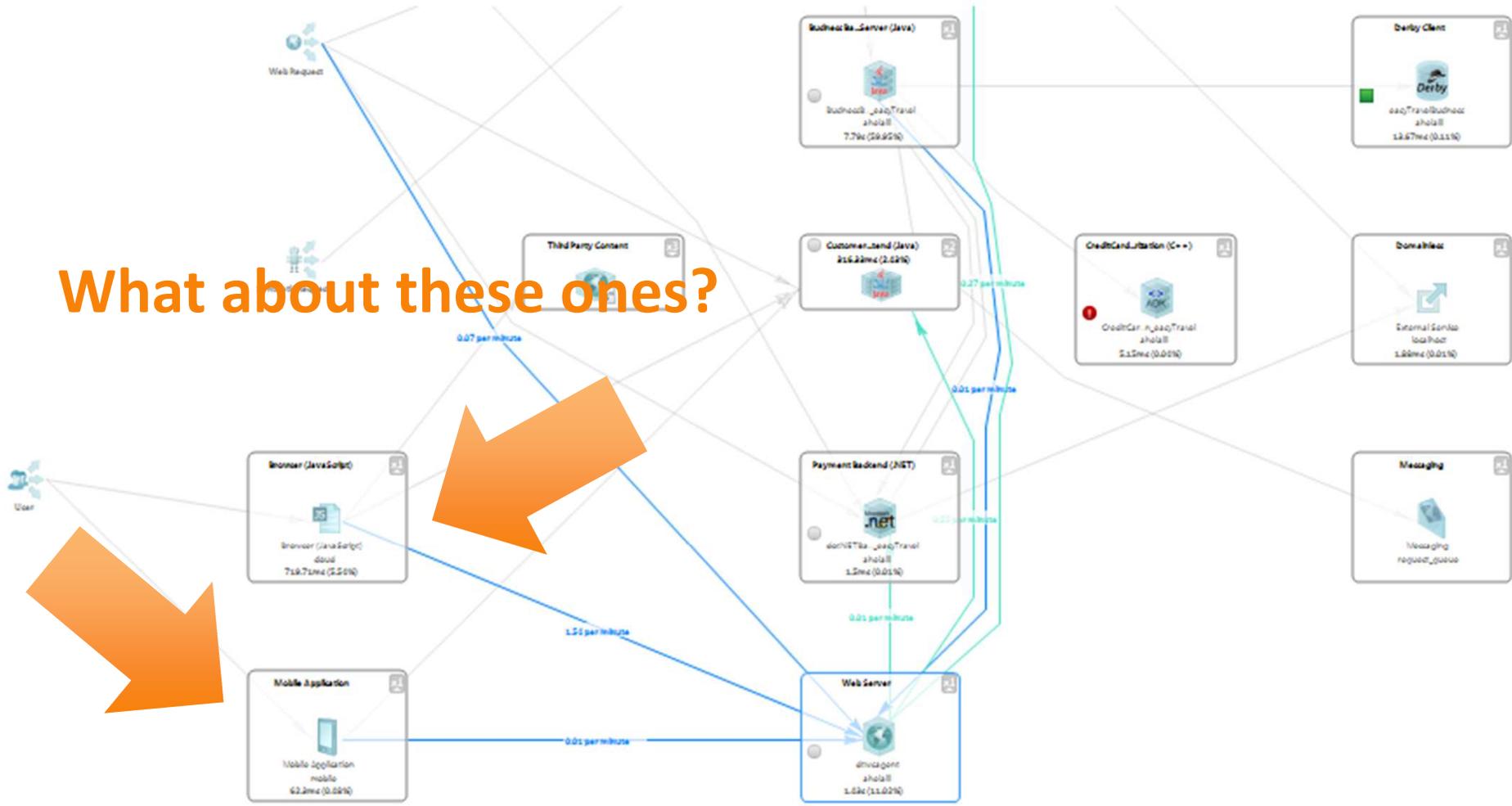
Is the
speed of
this wheel
telling you
much?

So what should we look at?

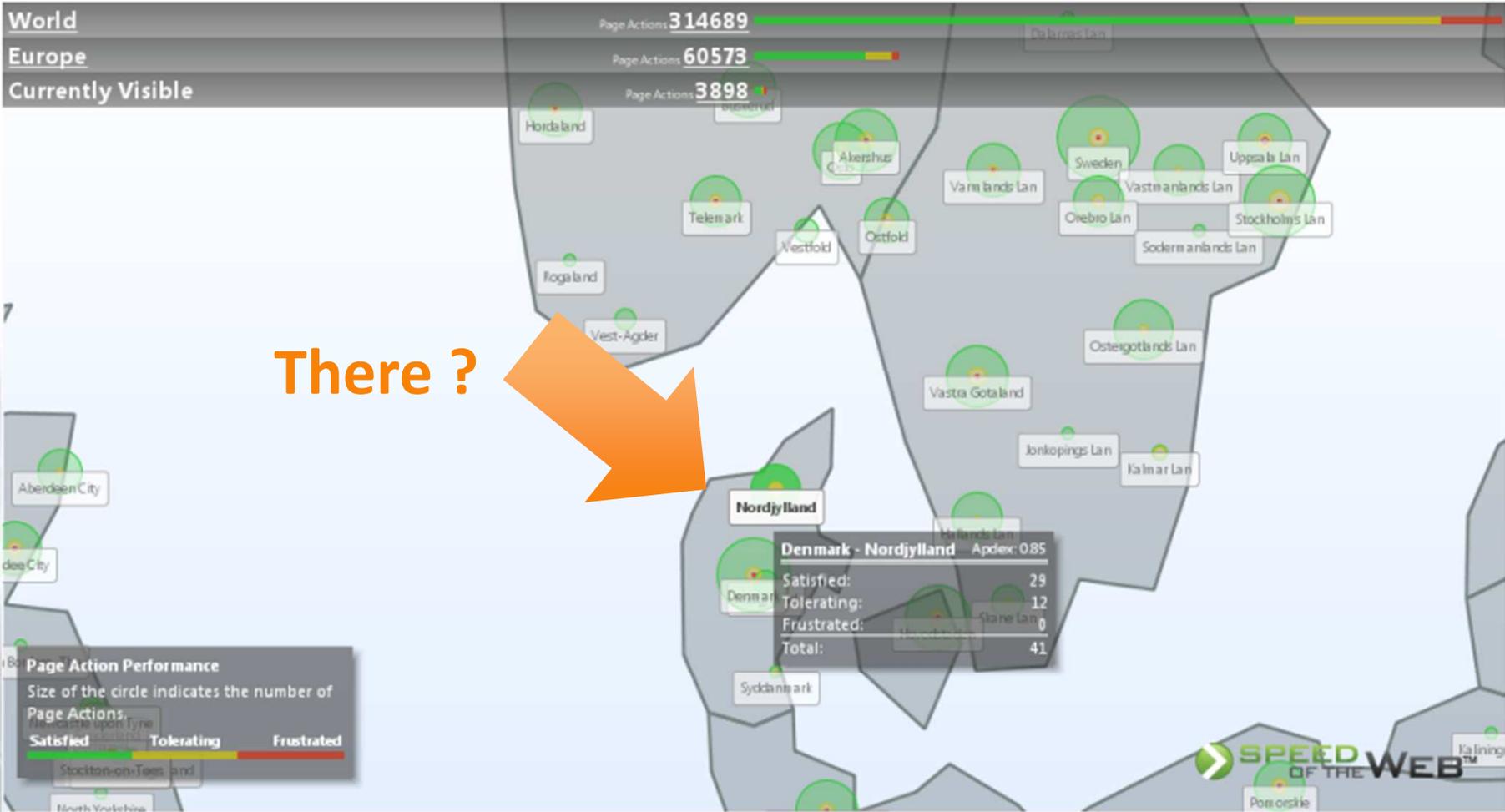


So what should we look at?

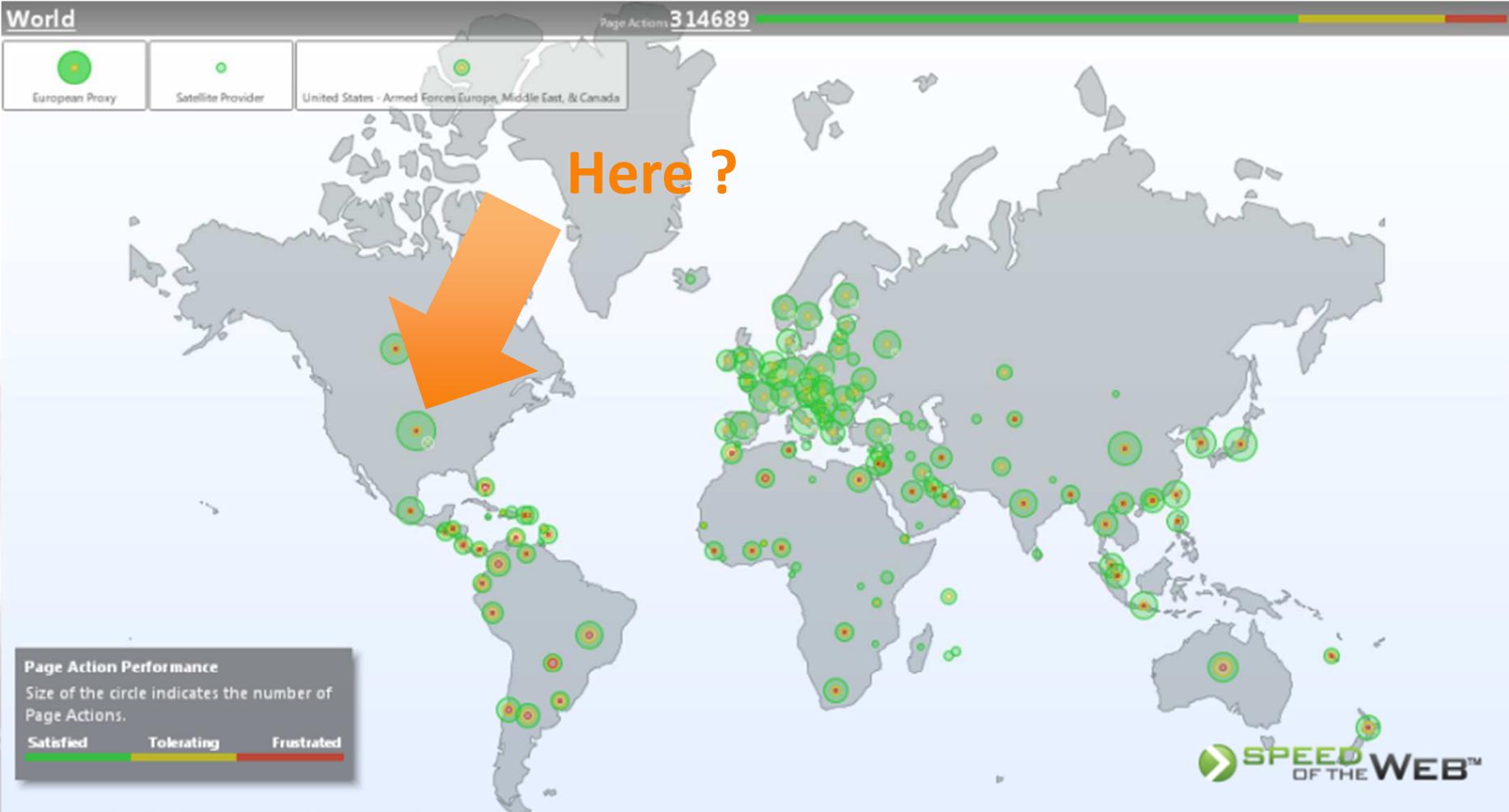
What about these ones?



So what should we look at?



So what should we look at?

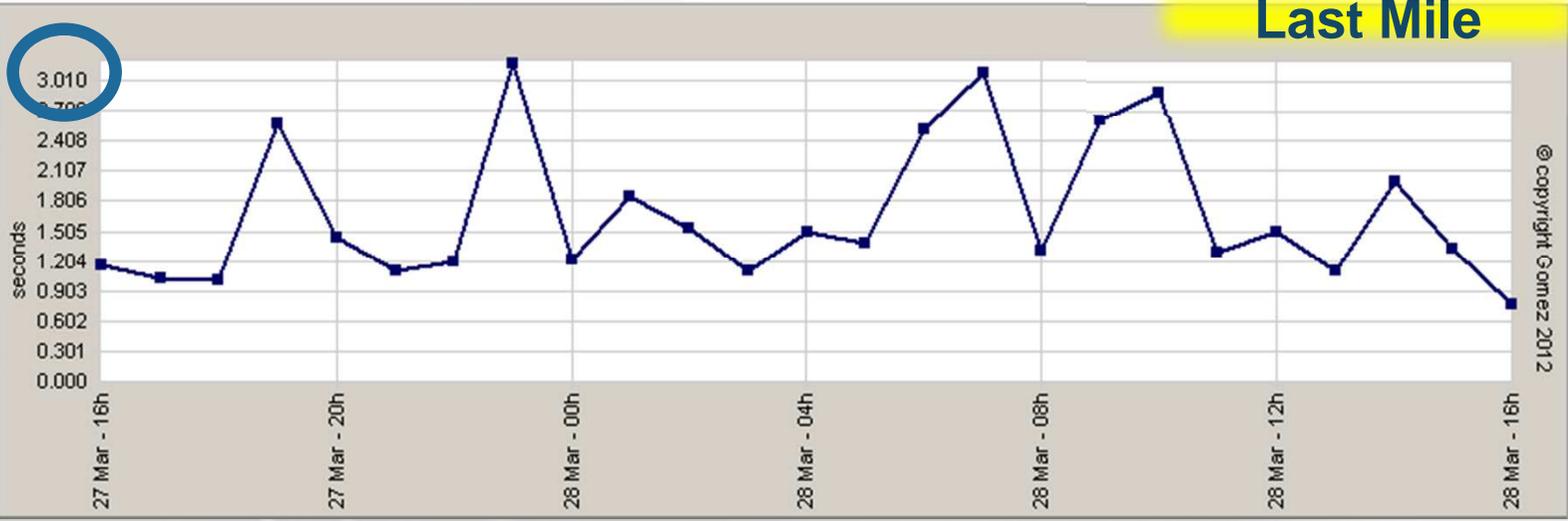


So what should we look at?

Backbone

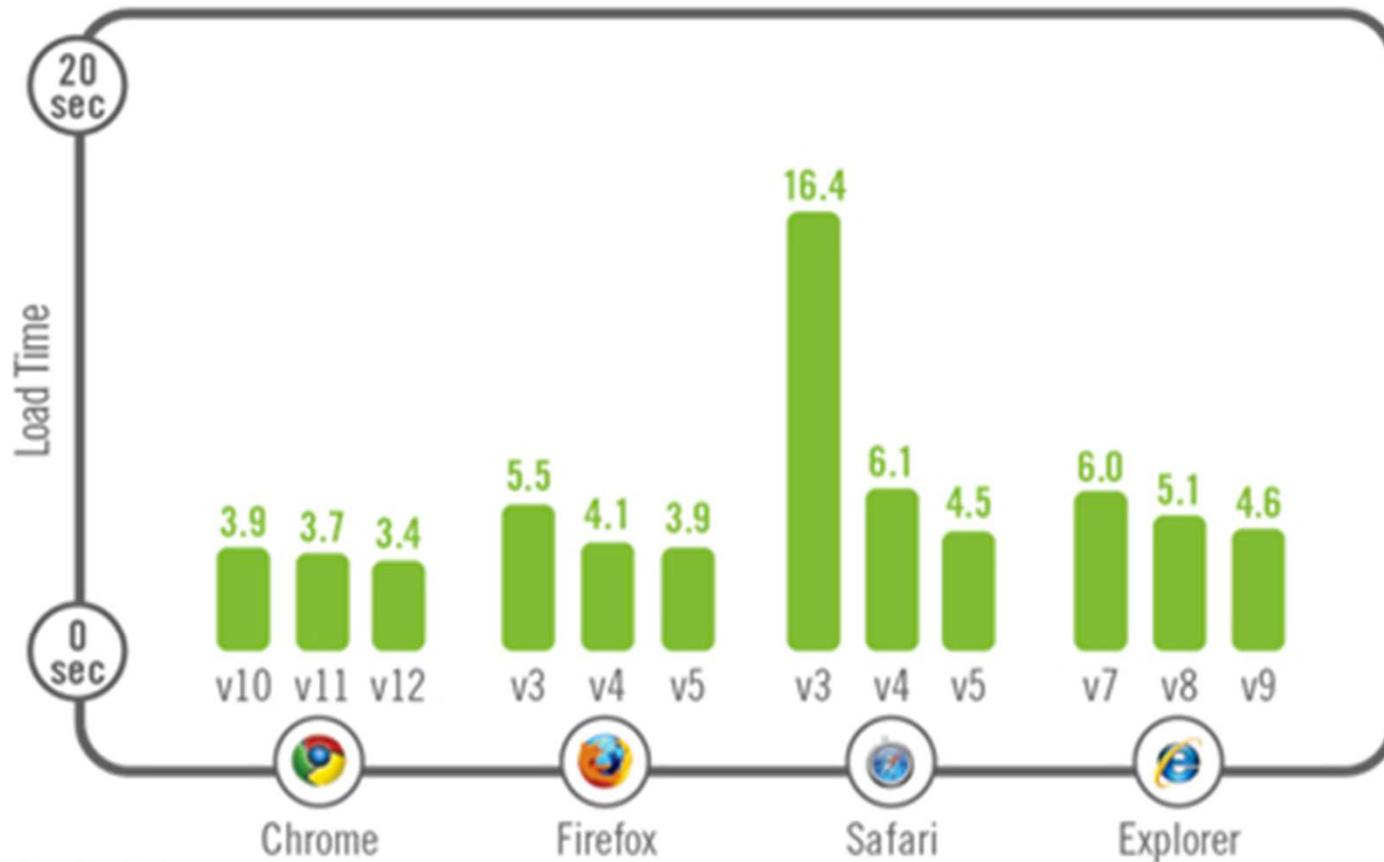


Last Mile



Which browser?

Performance Differences Across Browsers



Source: Gomez Real-User Monitoring

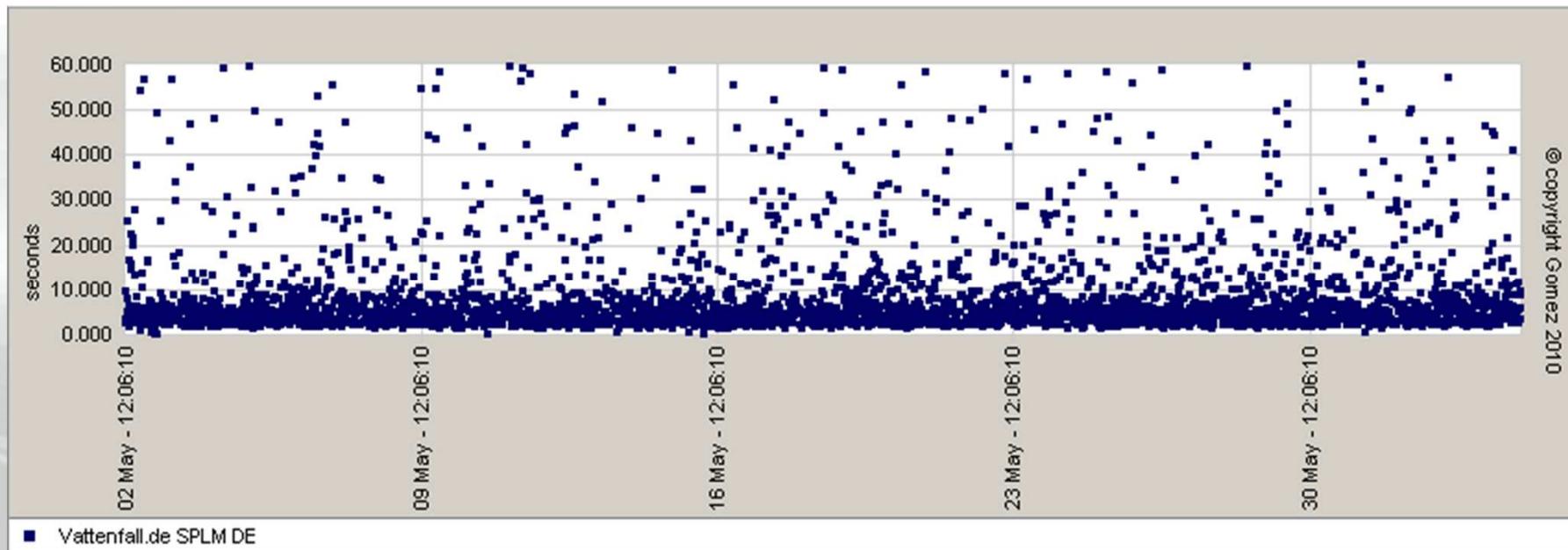
• 1.86 billion page measurements • 200+ websites • Broadband connections only • US Only

Which device?

- How long did it take to sell 1 million unit?
 - 3 years for the IBM PC
 - 73 days for the iPhone 1
 - 3 days for the iPad2
-and the iPhone 5 reached 2 millions in 1 day

What does it look like in the real life?

- 31% over 10s
- 25% over 15s
- 22% over 20s





**All right,
let's give
up then!**

First, we need to
know how bad
we are

Test from outside

- <http://speedoftheweb.org>

SPEED OF THE WEB™

Get your SpeedoftheV

Enter your URL for comparison

First Name

Email

Company

Telephone

All fields are required

Source region for report generation:

Map showing regions: NORTH AMERICA, SOUTH AMERICA, EUROPE, AFRICA, ASIA, AUSTRALIA. Oceans: Atlantic Ocean, Indian Ocean.

Google Terms of Use

First Impression Time

The time depicts how long the user sees a blank screen before the actual Web page.

You: **0.6 sec**
Index: 1.7 sec

Top performers:
www.allgiantair.com/airline 0.38 sec
www.tripmama.com 0.63 sec
www.onetravel.com 0.81 sec

1 % are better than you

OnLoad Time

The page and all referenced content have been loaded. This is the time most frameworks use to enrich the page with dynamic behavior. Before this time, not all dynamic content may be available.

You: **2.1 sec**
Index: 3.6 sec

Top performers:
www.travelocity.com 1.38 sec
www.reservationstogo.ct 1.48 sec
www.haramts.com 1.62 sec

1 % are better than you

Total Load Time

This time defines when all content of a Web page is loaded, including asynchronously loaded items like ads or other third-party content.

You: **4.0 sec**
Index: 4.8 sec

Top performers:
www.reservationstogo.ct 1.8 sec
www.allgiantair.com/airline 1.87 sec
www.travelocity.com 1.73 sec

4 % are better than you

URL for sharing: <http://www.speedoftheweb.org/report/665426-6b2b-4307-bcd9-d547692926e1?Index=US-TravelcategoryID=0>

FAQ Terms and Conditions Privacy Contact

COMPUWARE APM

Test many other scenarios

- <http://www.gomez.com/resources/instant-test-center/>



APM Instant Test Center

Learn how your website performs across browsers, compared to your competitors and on mobile applications. Take an Instant Test today.

Multi-Browser Performance

Site Slow Across Browsers Or Locations?

Take the free Gomez Multi-Browser Website Performance Test to determine how fast your Website loads across two browsers and four geographies.

[Take Free Test Now »](#)

Website Performance Test

How Fast Is Your Site?

Test your Website using the world's most comprehensive testing network. Use Gomez's instant testing to find performance problems before your customers do.

[Take Free Test Now »](#)

Website Performance Comparison

Is Your Website As Fast As Your Competitors'?

Speed matters – don't lose customers due to web performance. Get a free Custom Benchmark report to find out how your website performance compares to your competition.

[Take Free Test Now »](#)

Cross-Device Compatibility

Does Your Website Render Properly Across All Devices?

Take the free Cross-Device Website Compatibility Test and find out if your website displays correctly across four real mobile devices.

[Take Free Test Now »](#)

Instant Load Test

Are You Ready For More Website Visitors?

Take the free Instant Load Test and see what happens when your website traffic increases.

[Take Free Test Now »](#)

Mobile Website Performance Test

How Fast Is Your Mobile Site?

Are you meeting your customers' mobile website performance expectations? Take the Gomez Mobile Website Performance Test across 19 global locations and wireless carriers to find out.

[Take Free Test Now »](#)



So, how
scary ?

- <http://ajax.dynatrace.com>

Find all Key Performance Indicators(KPI) for the selected page

These values help you compare with other versions of the same page to identify problems or regressions .
[Learn more on Key Performance Indicators](#) and how they get calculated.

First Request	34ms	On Server	6470ms	DNS	853ms	Network	10395ms	Total Size	2254kb
First Impressio	2815ms	On Client	4095ms	Connect	9190ms	JavaScript	5319ms	# of Requests	174
OnLoad Time	10477ms	Ø Interactive	6ms	Transfer	15587ms	Rendering	967ms	# of XHR	4
Total Load Tin	10817ms			Ø Wait	98ms				



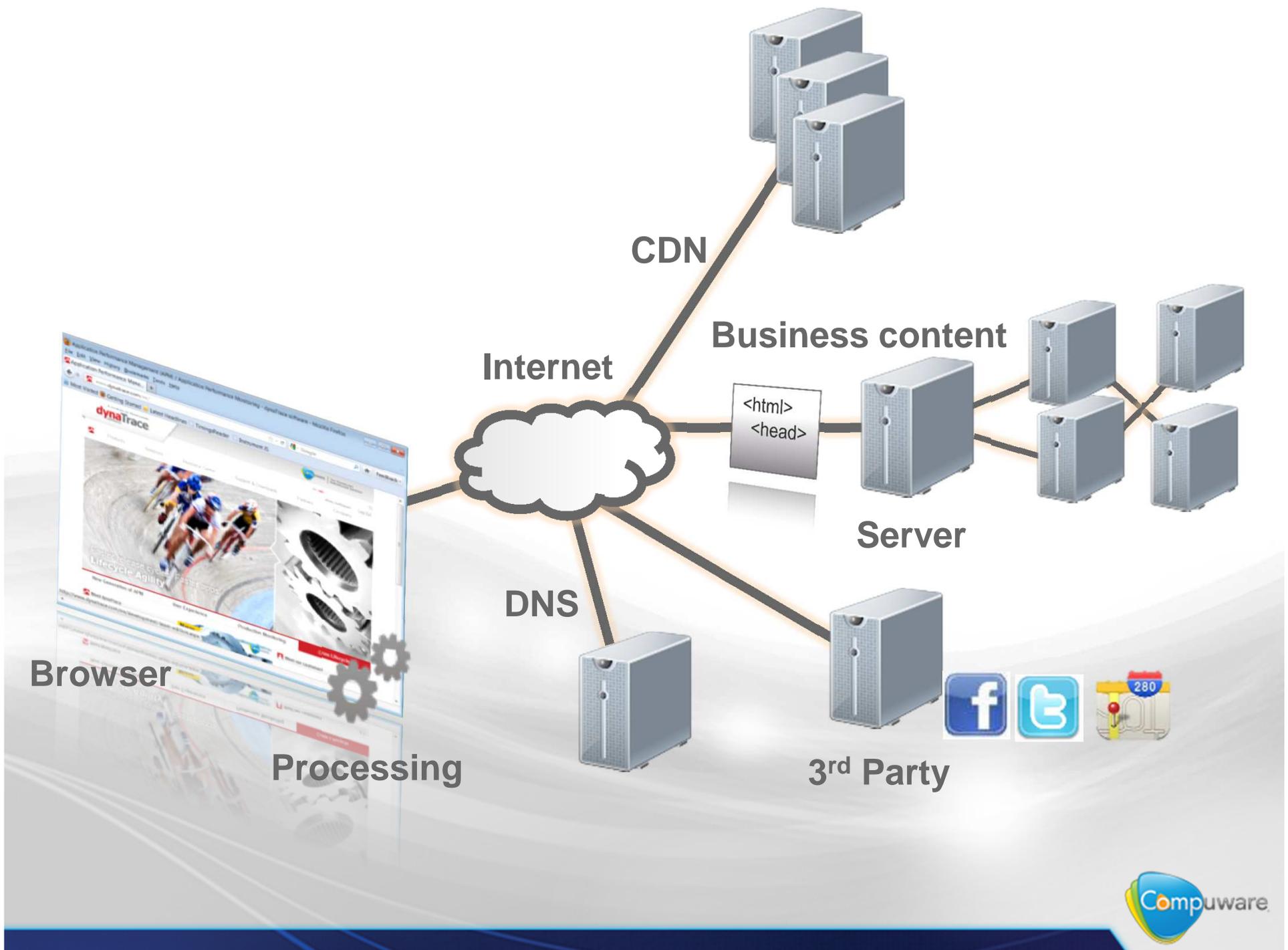
Following table lists details about all 12 different mime-types and their impact on caching



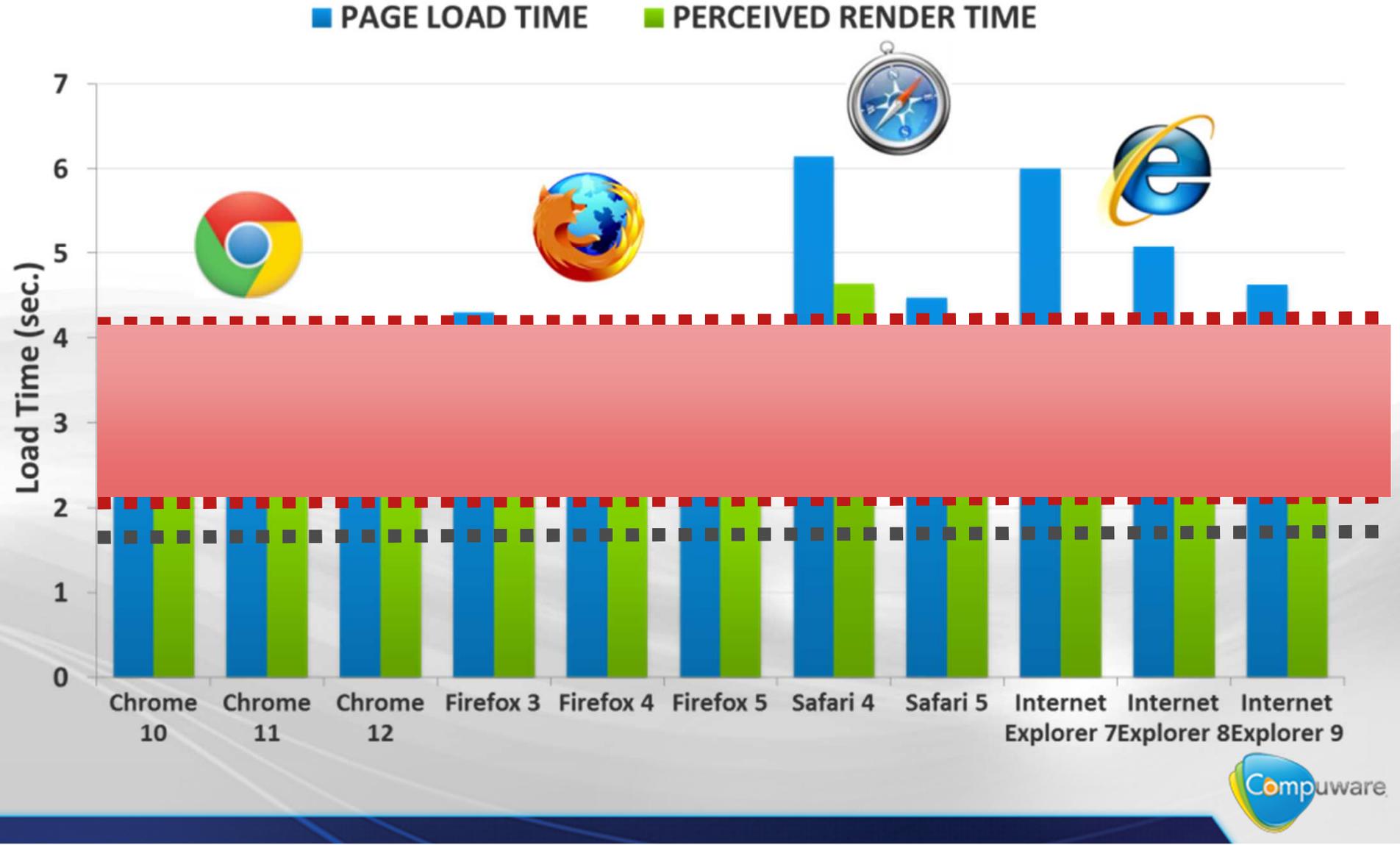
Resources are served from 30 different domain(s) where 19 domain(s) serve only single resources

[Eliminating single resource domains](#) saves 6923.26ms on DNS and Connect Time

URL	Count	Size [bytes]	Total [s]	DNS [s]	Wait [s]	Connect [s]	Server [s]	T
TOTAL	170	2309050	57.96	0.85	17.21	9.19	15.12	
www.airfrance.fr	124	1114730	39.30	0.02	16.72	0.22	10.06	
mfr.a2dfp.net	3	47877	1.88	0.02	0.02	0.78	0.65	

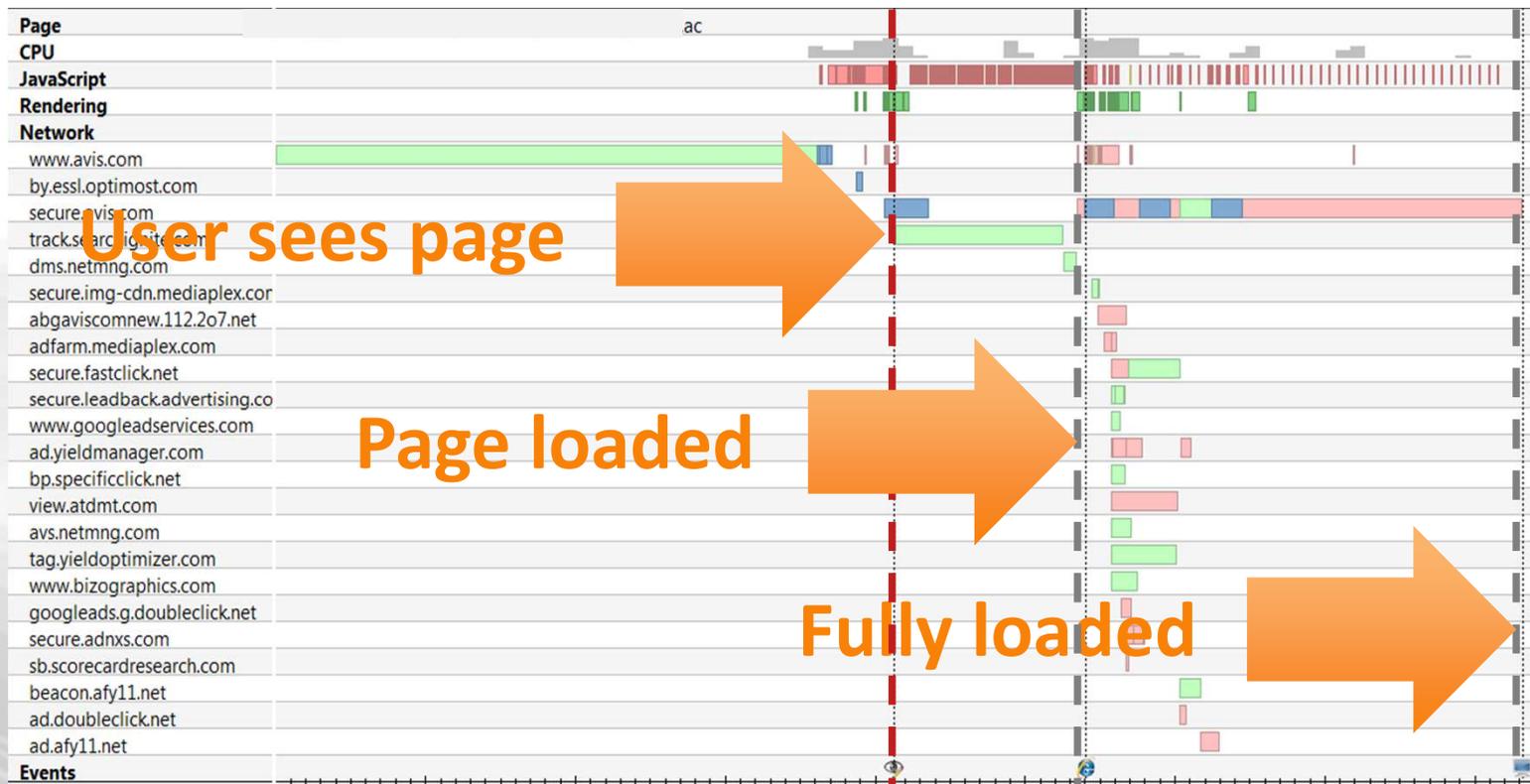


Work on the client side



Work on the client side

- <http://ajax.dynatrace.com>



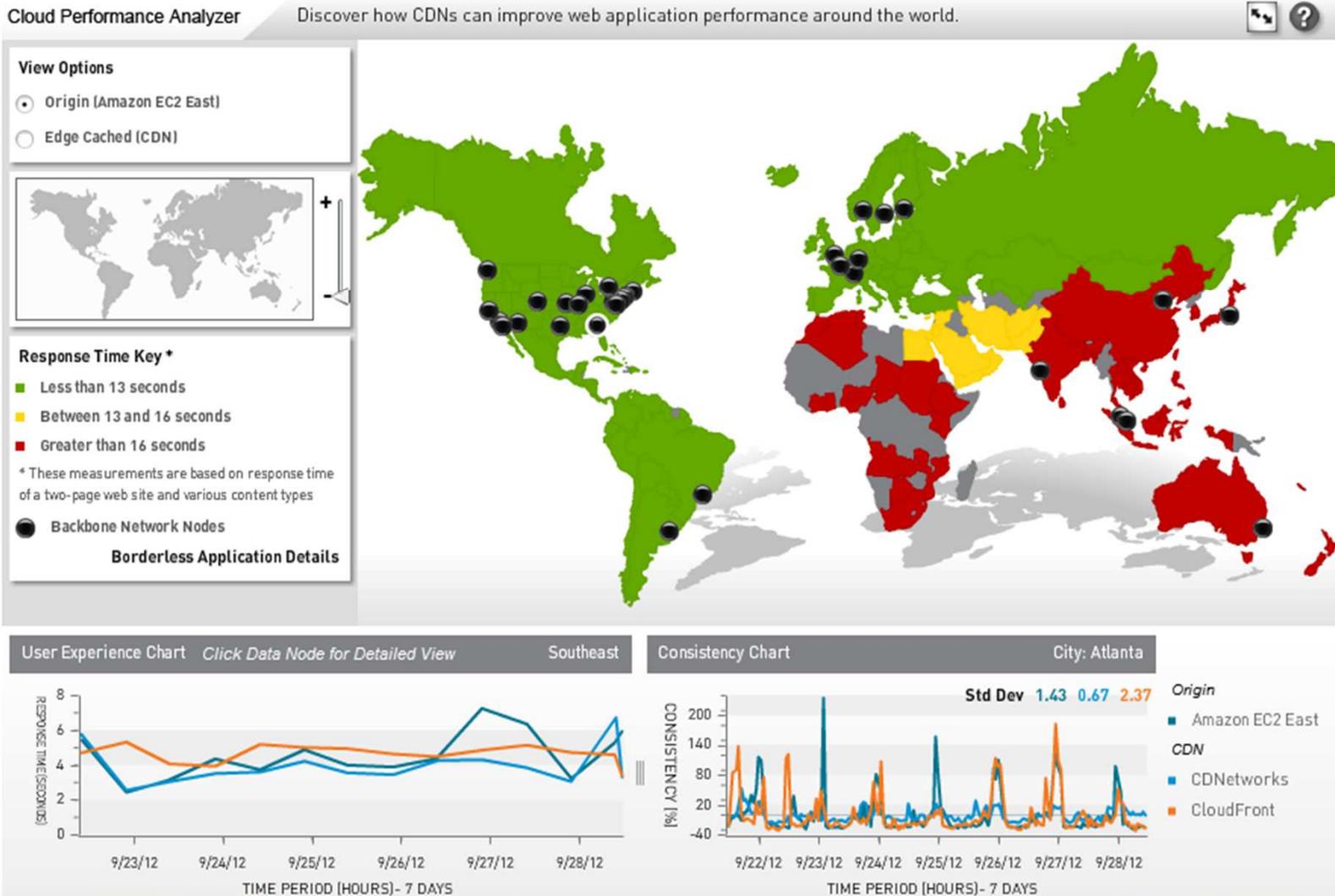
Find your right cloud provider

- <https://cloudsleuth.net/global-provider-view>



Find you right CDN prodvider

- <https://cloudsleuth.net/cdn-performance-analyzer>



Work on your 3rd party content

NEWS

Study: Yesterday's Facebook Outage Also Slowed Down Major Media And Retail Sites

Comment 11

Like 133

Tweet 521

Share 114

+1 29

FREDERIC LARDINOIS ✓

Friday, June 1st, 2012

11 Comments

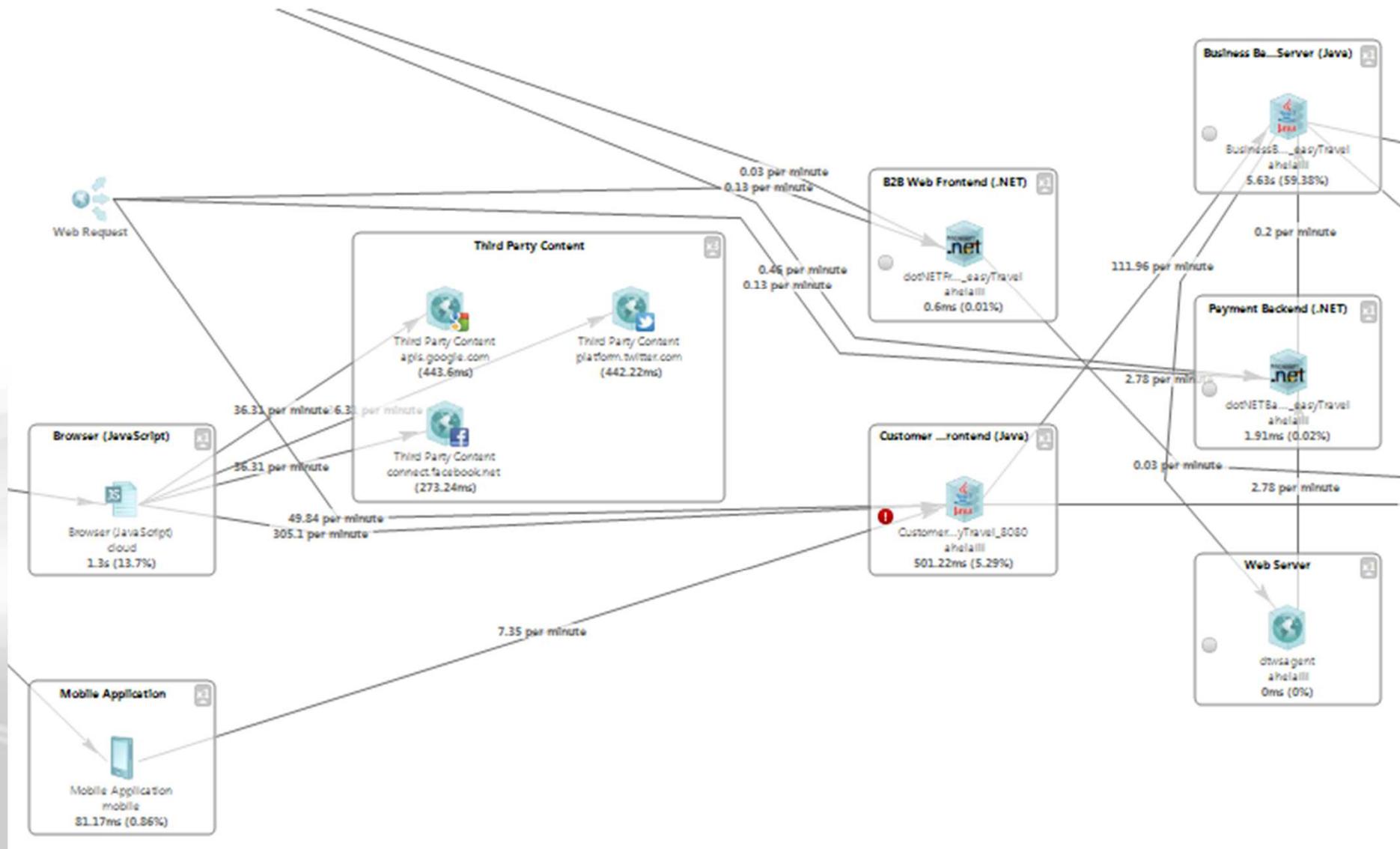


It's a testament to how important Facebook has become in the web ecosystem that the social network's **performance issues yesterday** didn't just affect the site itself (and its 900 million users) but also a wide variety of other sites as well. Performance monitoring company **Compuware APM**, which analyses the performance of thousands of top sites, just sent us some interesting data about how Facebook's problems yesterday correlated with significant slowdowns across major U.S. media and retail sites.

As our friends over at GigaOm **pointed out today**, "Facebook's faltering didn't lead to any



Work on your 3rd party content



Understand why users are frustrated

Visit	Count	UE Index	Page Actions	Visit Duration	Browser Errors	Failed Actions	Exit Action failed
▷ Satisfied Visits	360	1.0	873	12s	0 % (1)	0 % (0)	0 %
▷ Tolerating Visits	126	0.5	377	32s	0 % (0)	6 % (21)	0 %
▲ Frustrated Visits	89	0.0	664	1min 8s	0 % (0)	11 % (74)	83 %
👤 Visit from Willemstad, Netherlands Antilles usir	-	-	3	49s	no	0 % (0)	no
👤 Visit from Toronto, Canada using Firefox 6.0	-	-	2	47s	no	0 % (0)	no
👤 Visit from Colombia using IE 7.0	-	-	4	2min 33s	no	0 % (0)	no
👤 Visit of 'user60' from Bradley Beach, United Stat	-	-	9	58s	no	11 % (1)	yes
👤 Visit of 'user11' from Bangor, United States usin	-	-	8	50s	no	12 % (1)	yes
👤 Visit of 'user52' from Mount Laurel, United Stati	-	-	8	57s	no	12 % (1)	yes
👤 Visit of 'user87' from San Jose, United States usi	-	-	8	49s	no	12 % (1)	yes
👤 Visit of 'user10' from Perkasio, United States usi	-	-	8	56s	no	12 % (1)	yes

Page Action	End-To-End Response	Duration [ms]	Start-Time	User Experience	Client-Tim...	Network-Ti...	Server-Tim...
📄 Loading of Page /legal-orang...	network	5472.00	2012-09-28 15:40:37	satisfied	0.00	5280.50	191.50
📄 Loading of Page /orange.jsf	network	5854.00	2012-09-28 15:40:45	satisfied	0.00	5568.99	285.01
🖱️ click on "Login" on /orange.jsf		121.00	2012-09-28 15:40:54	satisfied	0.00	35.72	85.28
🖱️ click on "Search" on /orange.jsf		72.00	2012-09-28 15:40:57	satisfied	0.00	13.51	58.49
🖱️ click on "Search" on /orange.jsf		1683.00	2012-09-28 15:40:57	satisfied	1183.31	385.64	114.05
🖱️ click on "Book Now" on /oran...	network	5115.43	2012-09-28 15:41:02	satisfied	0.00	5044.49	70.94
🖱️ click on "Next" on /orange-bo...	network	4621.51	2012-09-28 15:41:10	satisfied	0.00	4489.32	132.19
🖱️ click on "Next" on /orange-bo...	client (32%) network (54%)	15209.29	2012-09-28 15:41:18	tolerating	4908.82	8071.27	2229.21
🖱️ click on "Finish" on /orange-b...		2129.57	2012-09-28 15:41:33	frustrated	1001.57	48.34	1079.66



Work on the server side

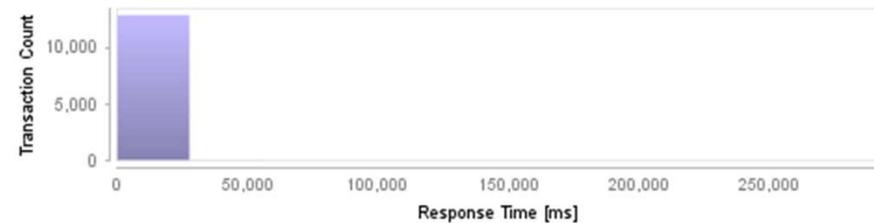
easyTravel

Analyze the transaction response time and its distribution across tiers and APIs to isolate performance problems

Server Transaction Statistics

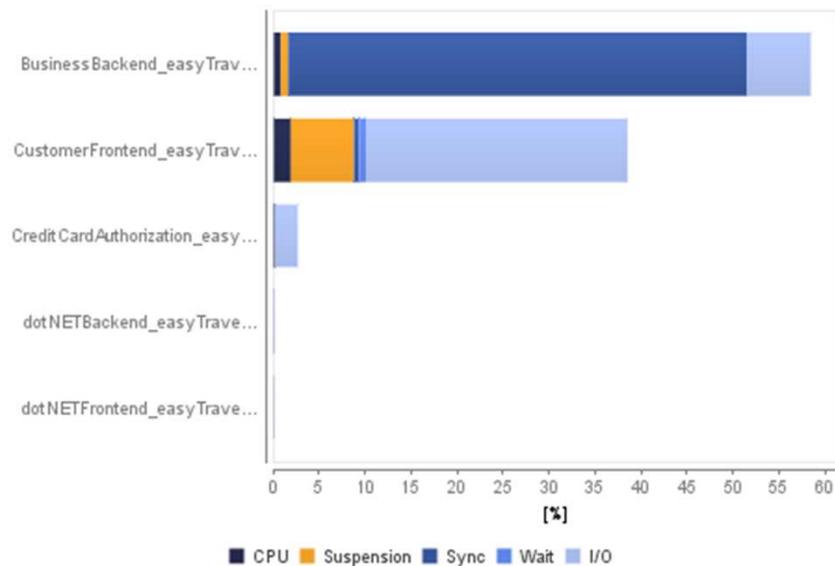
[Show Method Hotspots](#)

Transaction Count: 12886
Average Response Time: 522.08 ms
Failed Transactions: [151 \(1.17 %\)](#)



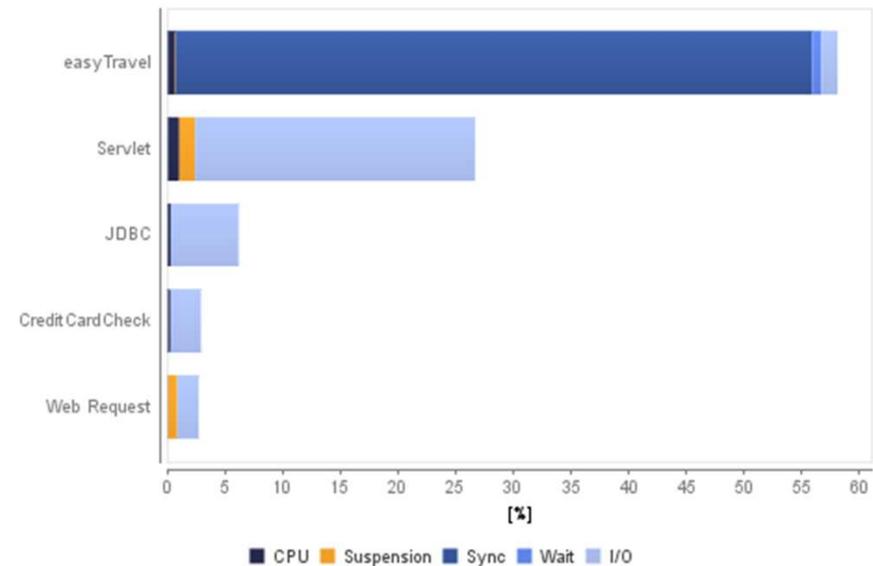
Hotspots by Tier

show by Agent ▾



Hotspots by API

[Show API Breakdown](#)



Database and Con

- PurePath
- /orange-b
- /js/jquery
- /orange-b
- /js/jquery
- /
- /
- /orange-h

Database

PurePath T

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