

Magento Mobile Performance: The Responsive Mythes

Is Magento mobile ready?

What is Mobile Performance? and is it possible with Magento

SPEED LIMIT 10

- minimize http request

- deflate content
- merge css/js
- expire data
- images

Top 5

Is this the same with mobile performance?

Yes, but there is much more!

XHTML Mobile Profile

Hundred of different devices

Local Storage

Network latency

Less Power

Is less More?

How can we fix this?

Only use image in:

- Logo
- Article
- Map

Don't use image <tag> for:

- Buttons
- Backgrounds
- Visual separators
- Titles

How do we optimize image using Data URI's?

Is there a max on images?

Are there javascript frameworks for mobile?

What about @font-face

Are CSS Sprites A Mobile Web "Worst Practice"?

What is a manifest file, and do I need this?

Can we validate/test our mobile website?

Responsive Mythes

Pitfall

My name: Ray Bogman

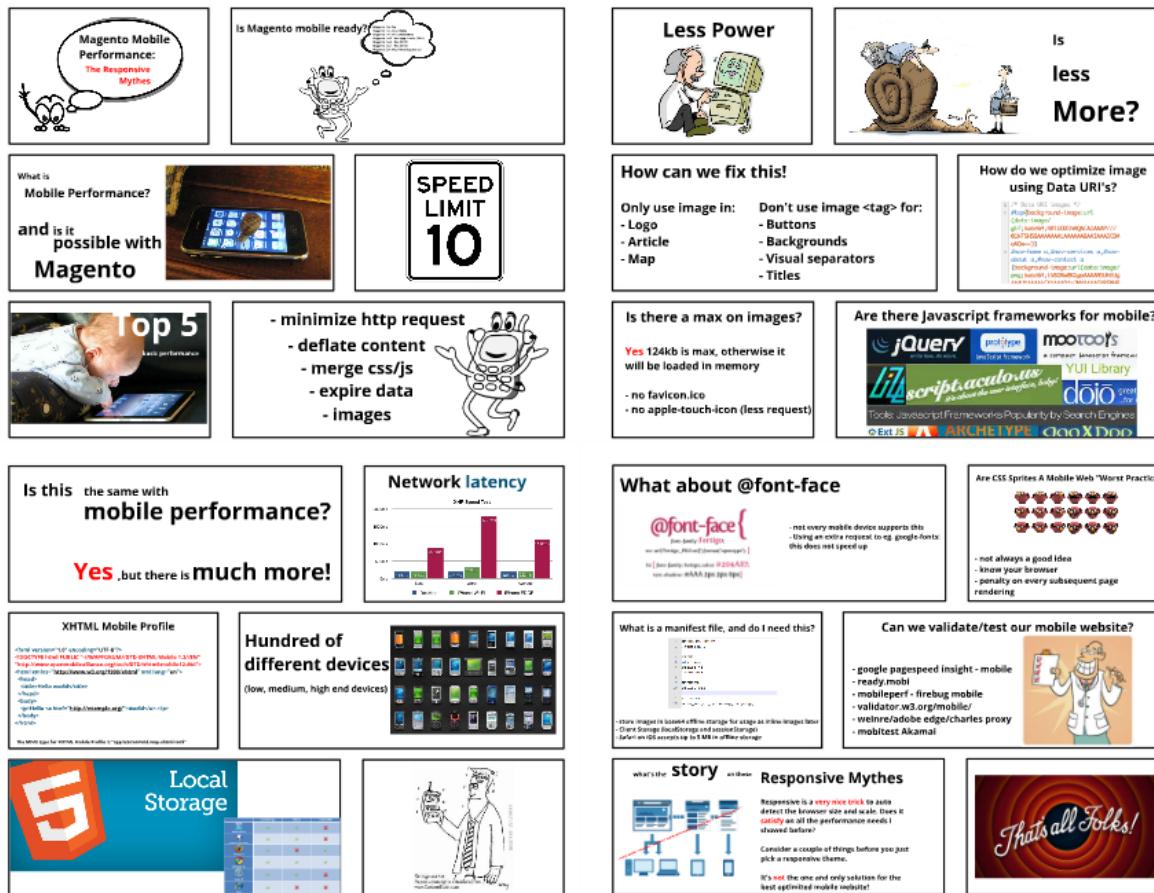
- Joomla/Magento evangelist
- Trainer
- Performance nerd
- Security geek

@ SupportDesk.nu

<http://www.linkedin.com/in/raybogman>

Resources:

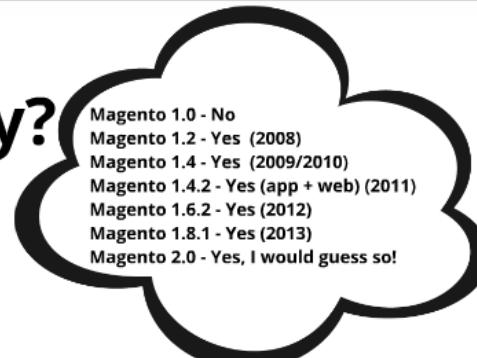
- <http://www.maxcdn.com/javascript/mobile-performance/>
- <http://caniuse.com/>
- <http://www.mobiledesigns.com/mobile-web-best-practices/>
- <http://css-tricks.com/mobile-best-practices/>
- <http://css-tricks.com/html5-media-questions-we-should-ask/>
- <http://www.getpuca.com/2012/03/07/faster-and-more-beautiful-web-with-video/>
- <http://www.rocketshare.net/mobile/mobile-best-practices/>
- <http://www.smashingmagazine.com/2013/06/06/mobile-web-best-practices/>

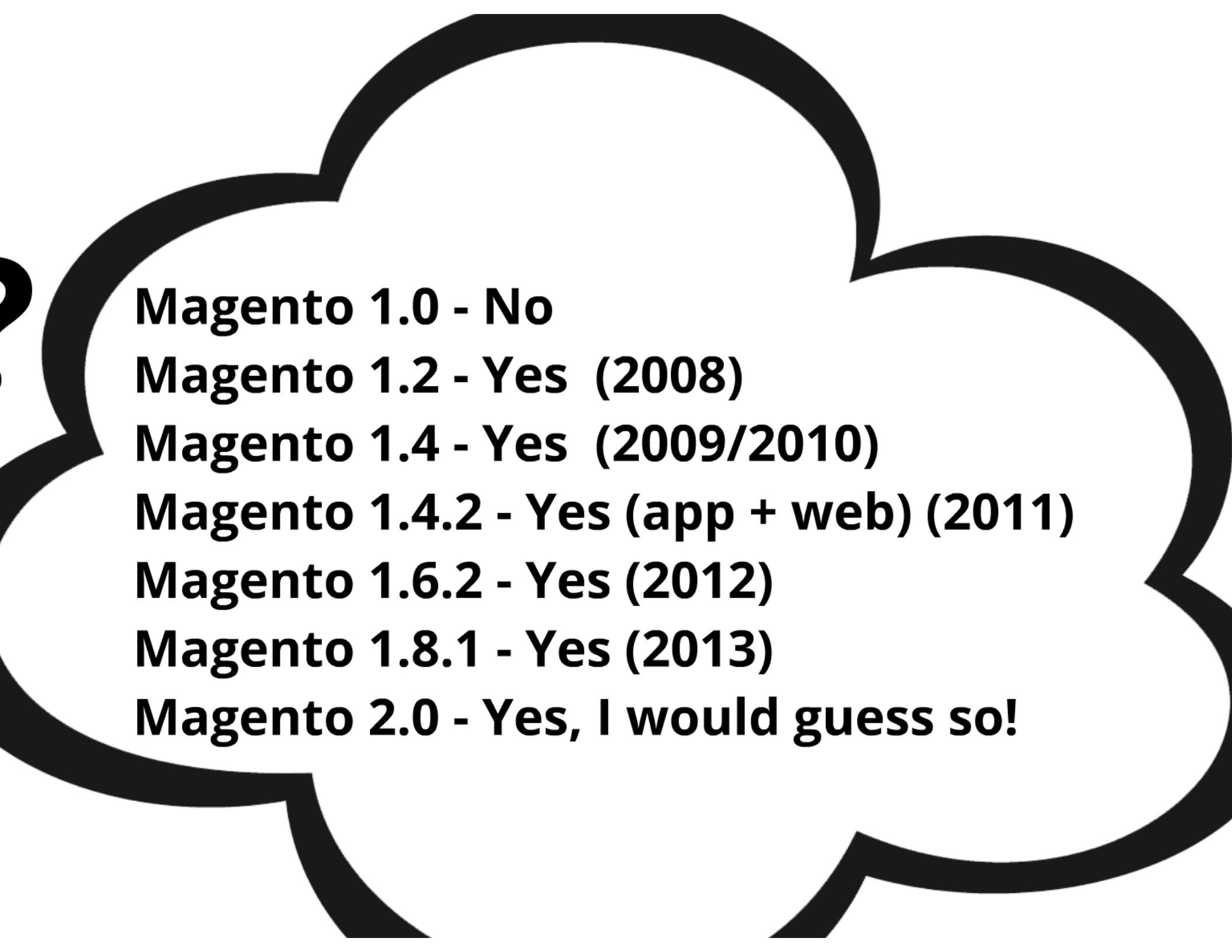


Magento Mobile Performance: The Responsive Mythes



Is Magento mobile ready?





Magento 1.0 - No

Magento 1.2 - Yes (2008)

Magento 1.4 - Yes (2009/2010)

Magento 1.4.2 - Yes (app + web) (2011)

Magento 1.6.2 - Yes (2012)

Magento 1.8.1 - Yes (2013)

Magento 2.0 - Yes, I would guess so!



What is
Mobile Performance?

and is it
possible with
Magento



- minim
defi -

**SPEED
LIMIT
10**

Top 5

basic performance

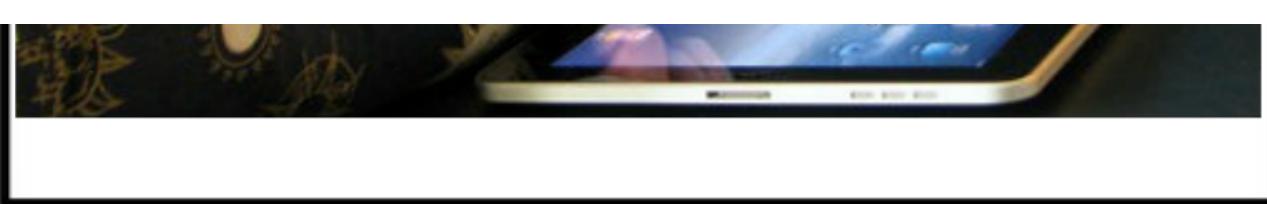




- minimize http request
 - deflate content
 - merge css/js
 - expire data
 - images

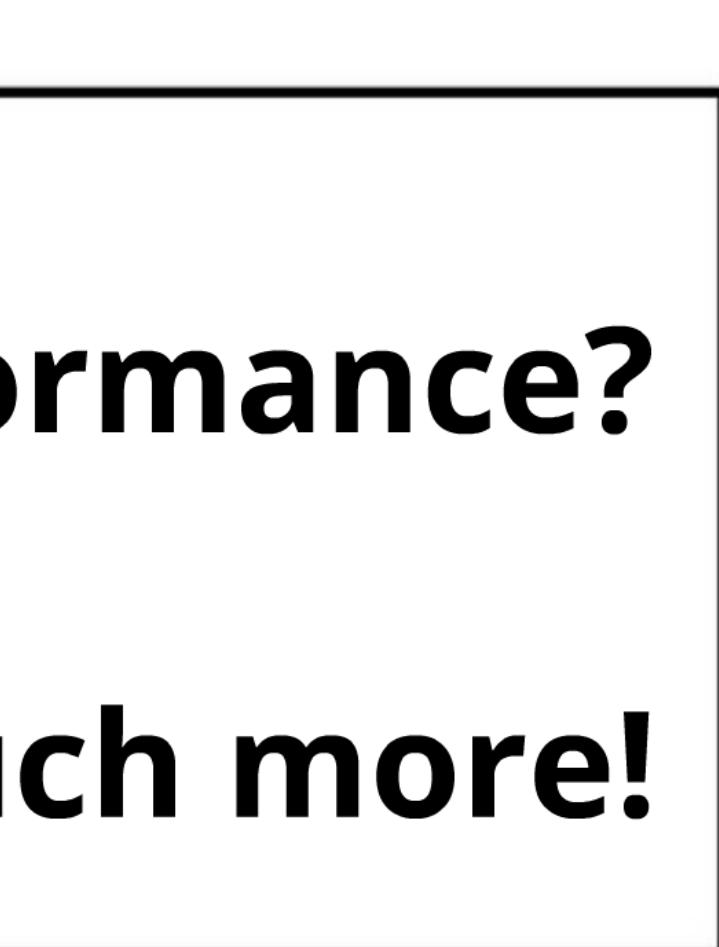
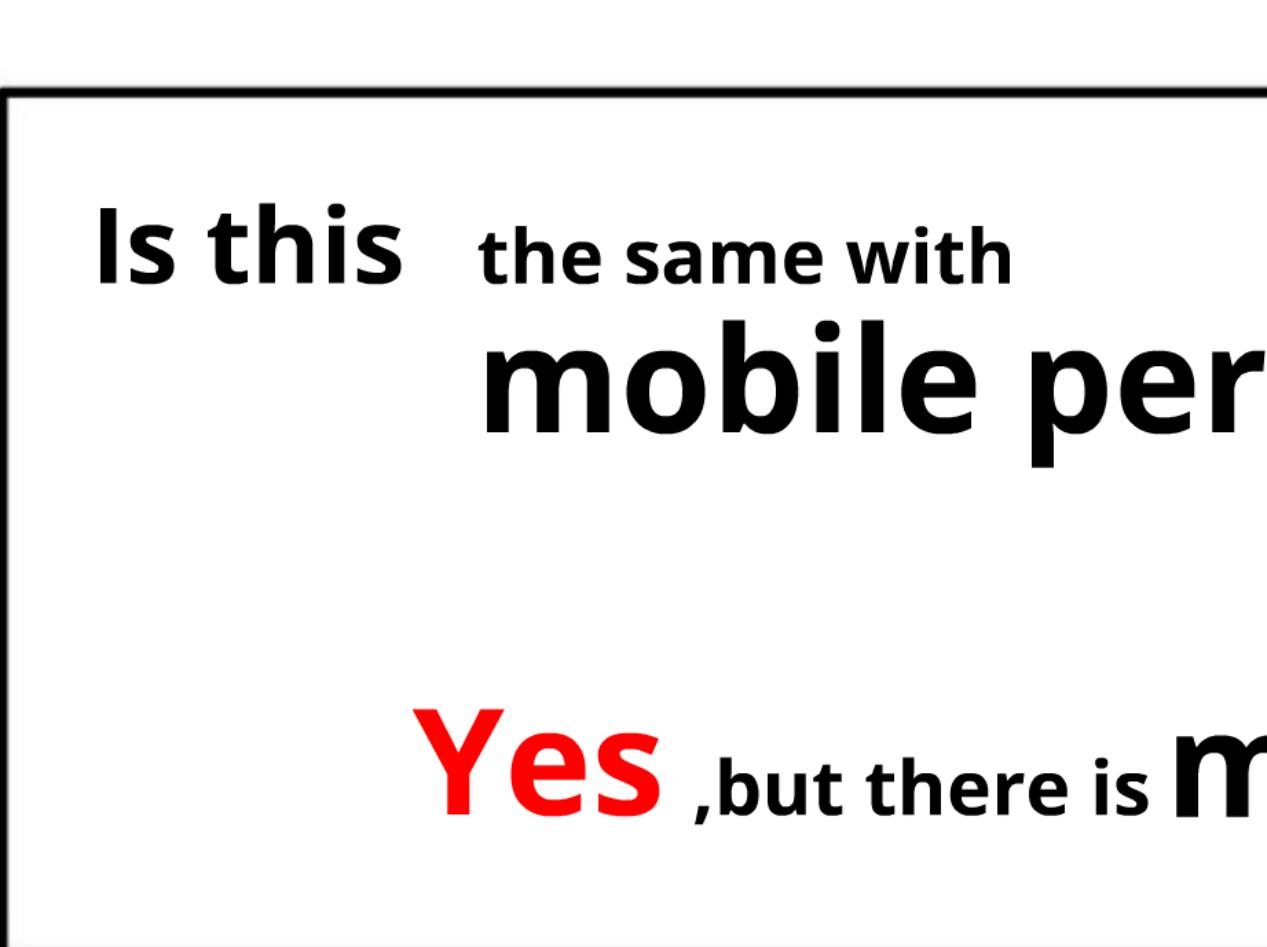


Network latency



**Is this the same with
mobile performance?**

Yes, but there is **much more!**



XHTML Mobile Profile

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//WAPFORUM//DTD XHTML Mobile 1.2//EN">
```

Hundred of

**is the same with
mobile performance?**

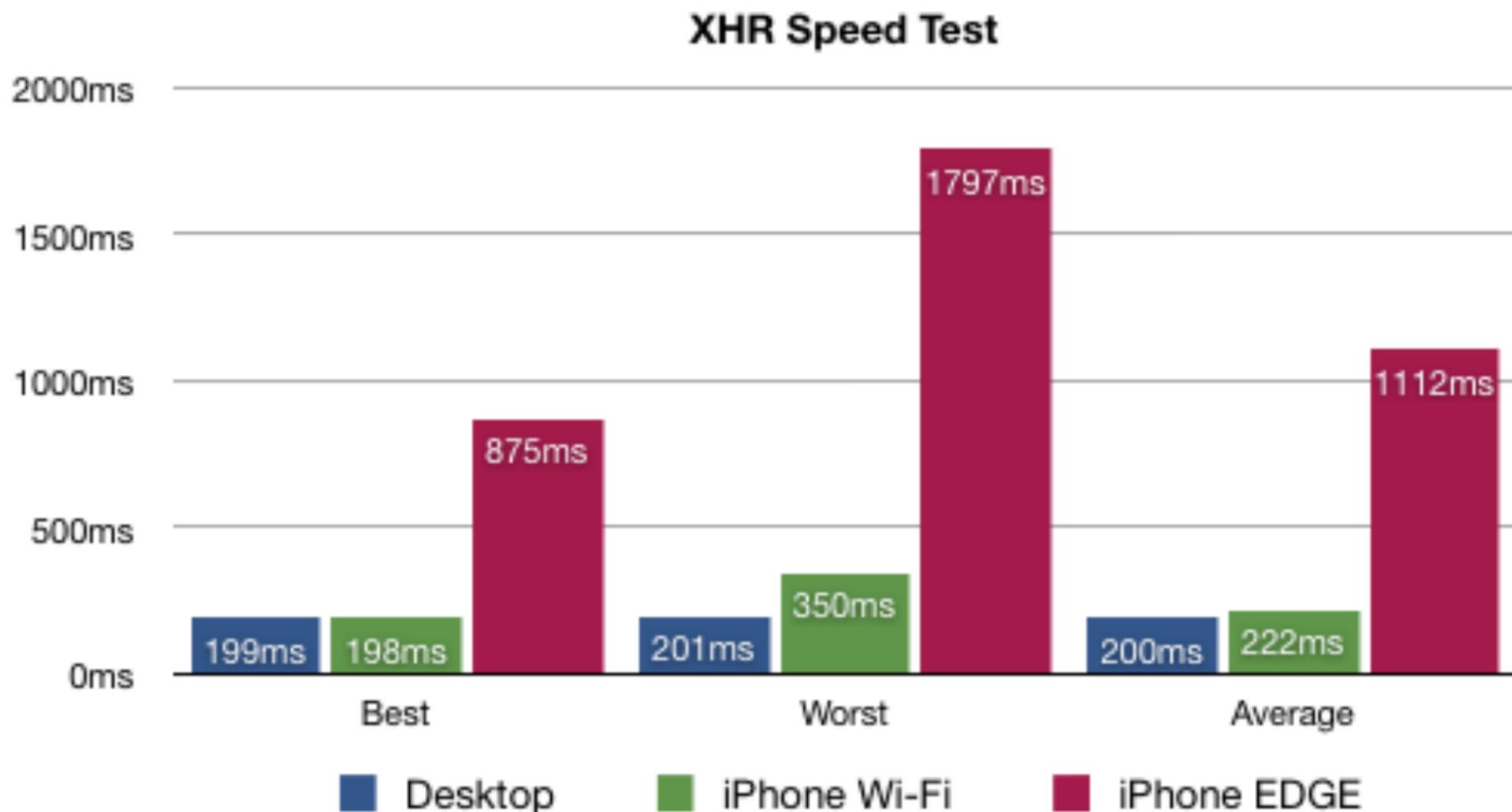
Yes ,but there is much more!

XHTML Mobile Profile

```
1.0" encoding="UTF-8"?>
PUBLIC "-//WAPFORUM//DTD XHTML Mobile 1.2//EN"
enmobilealliance.org/tech/DTD/xhtml-mobile12.dtd">
http://www.w3.org/1999/xhtml" xml:lang="en">
```

Hundred o
different d

Network latency

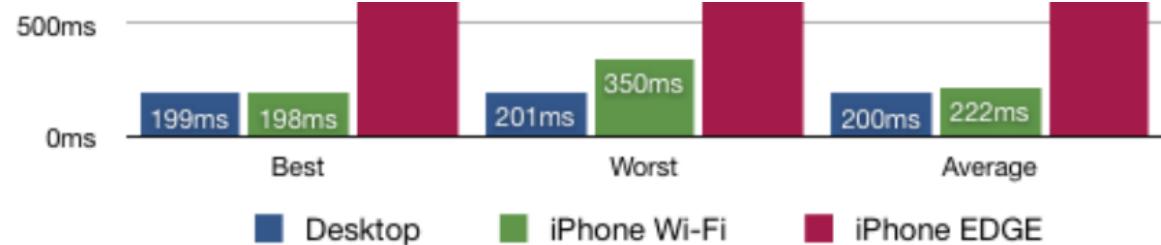


XHTML Mobile Profile

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//WAPFORUM//DTD XHTML Mobile 1.2//EN"
"http://www.openmobilealliance.org/tech/DTD/xhtml-mobile12.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
  <title>Hello world</title>
</head>
<body>
  <p>Hello <a href="http://example.org/">world</a>.</p>
</body>
</html>
```

The MIME type for XHTML Mobile Profile is "application/vnd.wap.xhtml+xml"

Watch more!



Hundred of different devices (low, medium, high end devices)



```
<p>Hello <a href="http://example.org/">world</a>.</p>
</body>
</html>
```

The MIME type for XHTML Mobile Profile is "application/vnd.wap.xhtml+xml"



	LocalStorage	SQLite	IndexedDB
Safari iOS 5	✓	✓	✗
Android 2.2 Browser	✓	✓	✗
Firefox 8	✓	✗	✓
Chrome 15	✓	✓	✓
Safari 5	✓	✓	✗
IE 8	✓	✗	✗

search ID: ake0008



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www.CartoonStock.com



Less Power





Is
less
More?

How do we optimize image
using Data URI's?



How can we fix this!

Only use image in:

- Logo
- Article
- Map

Don't use image <tag> for:

- Buttons
- Backgrounds
- Visual separators
- Titles

Is there a max on images?

Are there Java



Only use image in:

- Logo**
- Article**
- Map**

Don't use image <tag> for:

- Buttons
 - Backgrounds
 - Visual separators
 - Titles
-
-

How do we optimize image using Data URI's?

```
1 /* Data URI images */
2 #top{background-image:url
(data:image/
gif;base64,R0lGODlhAQACAAIAAP///
01NTSH5BAAAAAAALAAAAAABAAIAAAICDA
oA0w==)}
3 #nav-home a,#nav-services a,#nav-
about a,#nav-contact a
{background-image:url(data:image/
png;base64,iVBORw0KGgoAAAANSUhEUg
AAAIIYAAAALCAYAAAAD1n1MVAACYDFEWHD
```

Is there a max on images?

Yes 124kb is max, otherwise it will be loaded in memory

- no favicon.ico
- no apple-touch-icon (less request)

Is there a max on images?

Yes 124kb is max, otherwise it will be loaded in memory

- no favicon.ico
- no apple-touch-icon (less request)

rators

3 #nav-home a,#nav-services a,#nav-about a,#nav-contact a {background-image:url(data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAAAIYAAAAALCAYAAAAD1n1MvAAAACYDEWHD

Are there Javascript frameworks for mobile?



Are CSS Sprites A Mobile Web “Worst Practice?”

What about @font-face

```
@font-face{  
    font-family: Fertigo;  
}
```

```
src: url("Fertigo_PRO.otf") format("opentype"); }
```

```
h1 { font-family: Fertigo; color: #204A87;  
text-shadow: #AAA 2px 2px 0px}
```

- not every mobile device supports this
- Using an extra request to eg. google-fonts: this does not speed up

What is a manifest file, and do I need this?

```
1 CACHE MANIFEST  
2 #version 1  
3  
4 CACHE:
```

Can we va

nt-face

- not every mobile device supports this
- Using an extra request to eg. google-fonts:
this does not speed up

Are CSS Sprites A Mobile Web “Worst Practice?”



- not always a good idea
- know your browser
- penalty on every subsequent page rendering

What is a manifest file, and do I need this?

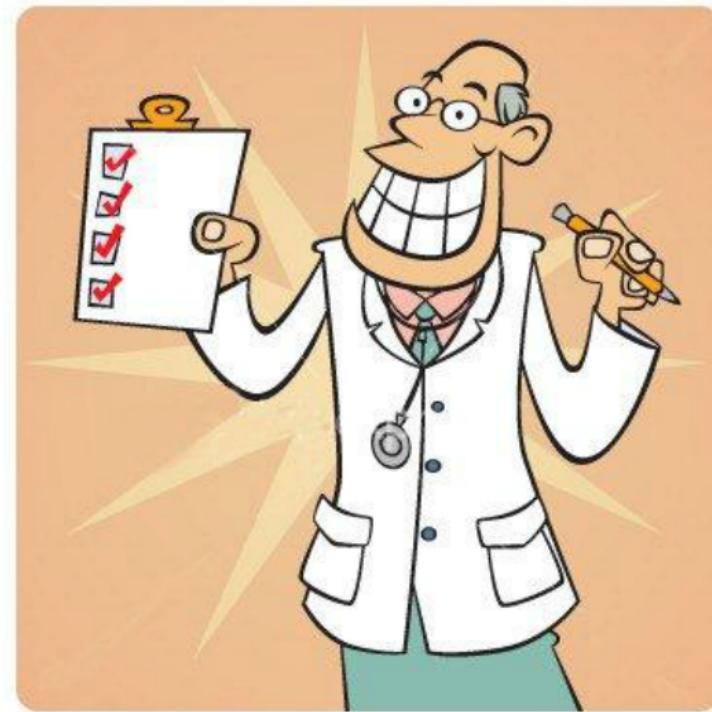
```
1 CACHE MANIFEST
2 #version 1
3
4 CACHE:
5 style.css
6 script.js
7 index.htm
8
9 NETWORK:
10 style2.css
11
12 Fallback:
13 main_image.jpg backup_image.jpg
```

- store images in base64 offline storage for usage as inline images later
- Client Storage (localStorage and sessionStorage)
- Safari on iOS accepts up to 5 MB in offline storage

- not always a good idea
- know your browser
- penalty on every subsequent page rendering

Can we validate/test our mobile website?

- google pagespeed insight - mobile
- ready.mobi
- mobileperf - firebug mobile
- validator.w3.org/mobile/
- weinre/adobe edge/charles proxy
- mobitest Akamai



Mythes

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- ready.mobi
- mobileperf - firebug mobile
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- Client Storage (localStorage and sessionStorage)
- Safari on iOS accepts up to 5 MB in offline storage

- validator.w3.org/m
- weinre/adobe edge
- mobitest Akamai

what's the **story** on these

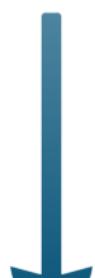
Responsive Mythes



Responsive is a **very nice trick** to auto detect the browser size and scale. Does it **satisfy** on all the performance needs I showed before?

Consider a couple of things before you just pick a responsive theme.

It's **not** the one and only solution for the best optimized mobile website!



RESPONSIVE IVYLINES

Responsive is a **very nice trick** to auto detect the browser size and scale. Does it **satisfy** on all the performance needs I showed before?

Consider a couple of things before you just pick a responsive theme.

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1986

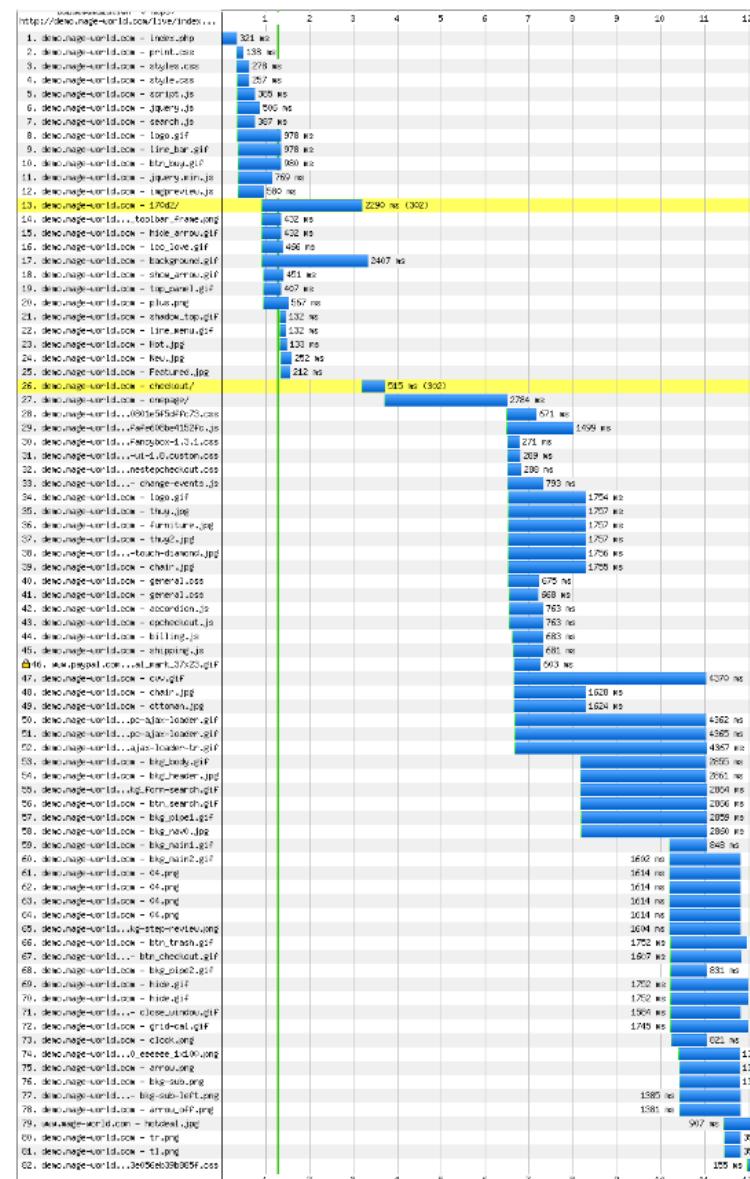
19:48

Pitfall



ACTIVISION

The screenshot shows a Magento checkout page. At the top, it asks for payment method selection: "Check / Money order" or "Credit Card (VISA, MC, AMEX, DEBIT)". Below this, fields for "Name on Card", "Credit Card Type" (dropdown menu), "Credit Card Number", and "Expiration Date" (dropdown menus for Month and Year) are present. A "REVIEW YOUR ORDER" section displays a single item: "Coalesce Functioning On Impatience T-Shirt" (Size: Small, Price: \$15.00, Qty: 1, Subtotal: \$15.00). An "Update Cart" button is available. Below the cart summary, shipping and handling details are shown: "Subtotal" (\$15.00), "Shipping & Handling (Flat Rate - Fixed)" (\$100.00), and "Grand Total" (\$115.00). A "DISCOUNT CODES" input field and an "Apply Coupon" button are at the bottom. A note says "Forgot an item? [Edit Your Cart](#)". Below the cart, there's a "Place Order" button and a "Subscribe newsletter" checkbox. At the very bottom, links for "About Us", "Customer Service", "Privacy Policy", "Site Map", "Search Terms", "Advanced Search", "Orders and Returns", and "Contact Us" are listed.



Latest Performance Report for: <http://demo.mage-world.com/live/index.php?id=1>

Report generated: Wed, Jun 26, 2013, 9:01 AM -0700
Test Server Region: Vancouver, Canada
Using: Chrome (Android, Galaxy Nexus) 26.0.1410.58, Page Speed 1.12.16, YSlow 3.1.8

Summary

Page Speed Grade:	YSlow Grade:
(55%)	(72%)

Page load time: 14.53s
Total page size: 676KB
Total number of requests: 83

A smartphone screen showing the mobile responsive design of the website. The phone has a black case and is held vertically. The website content is visible on the screen, including the header, navigation, and product details.

	updates... /170d2/on	P...	200 OK	te...	bbc5... Script	3.... 11.9	9... 910	
	hotdeal... www.mag	GET	200 OK	i...	bbc5... Script	(f... 31 n	3...	
	coalesc... /170d2/me	GET	304 Not	i...	bbc5... Script	2... 3.31	1... 165	
	tr.png /170d2/ski	GET	200 OK	i...	bbc5... Script	(f... 34 n	3...	
	tl.png /170d2/ski	GET	200 OK	i...	bbc5... Script	(f... 31 n	3...	

54 requests | 40.8 KB transferred | 6.74s (onload: 4.28s, DOMContentLoaded: 4.24s)

□ >≡ 🔍 ⚡ ⚡️ All Documents Stylesheets Images Scripts ⚙

Sparrow

o.mage-world.com



MAGE WORLD
Live Demo

One Step Checkout Pro

[Buy Now](#)

[More Live Demos](#)

Magento®

Default welcome msg!

[My Account](#) | [My Wishlist](#) | [My Cart \(2 items\)](#) | [Checkout](#) | [Log In](#)

Your Language: English

Furniture Electronics Apparel Shoes

One Step Che

Please fill in th

[Already registered? Click here to login.](#)

① BILLING ADDRESS

First Name * Last Name *

Company Email Address *

Address [Manage Address Fields](#)

You can enable / disable / sort all address fields, set them as mandatory or optional.

City State/Province

Zip/Postal Code Country *

Telephone

Tax/VAT number

Create an account for later use

Ship to same address

② SHIPPING METHOD

United Parcel Service

- Worldwide Expedited \$525.25
- Worldwide Express Saver \$715.22
- Worldwide Express \$741.40
- Worldwide Express Plus \$785.40

③ DELIVERY TIME

Select preferred time

Date: 06/28/2013 Time: 09:50 am

[Time Range](#)

④ REVIEW YOUR ORDER

Chair



Ottoman



Discount Coupon

Allow to apply discount coupon directly on the checkout page

[Update Cart](#)

Shipping & Handling (Flat Rate - Fixed)

Grand Total \$629.98

[Apply Coupon](#)

More Convenient Features

- * Responsive Design! Support ALL devices
- + Allow to add poll (Admin / CMS / Polls)
- + Enable check box for approval of terms and conditions
- + Enable Newsletter subscription when checking out
- + Plus Many More Features!

Forgot an Item? [Edit Your Cart](#)

What is your favorite color [Please select](#)

* I accept the [Terms and Conditions](#)

[Place Order](#)

mage-world.com/170d2/check   

Payments Standard [PayPal](#) [What is PayPal?](#)

M/C, AMEX, DEBIT)

Year

YOUR ORDER

Product Name	Price	Qty	Subtotal
Coalesce: unctioning On mpatience T- shirt ize Small	\$15.00	1	\$15.00

Update Cart

Subtotal	\$15.00
Shipping & Handling (Flat Rate - Fixed)	\$100.00
Grand Total	\$115.00

Apply Coupon

Forgot an Item? [Edit Your Cart](#)

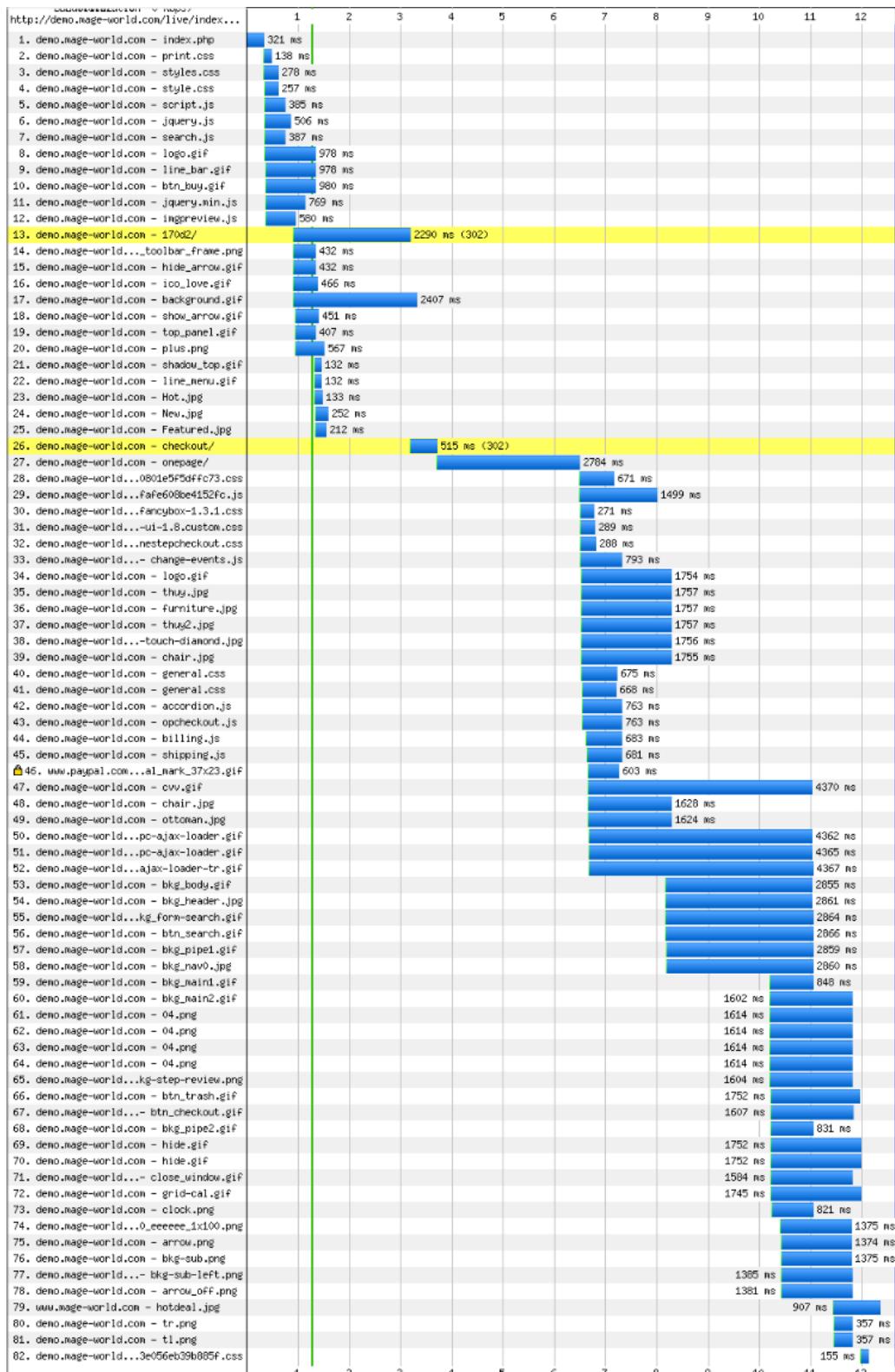
Please select

nd Conditions

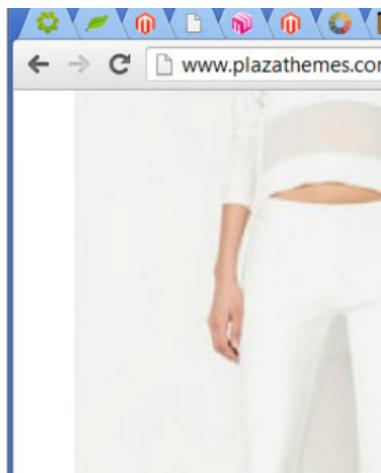
[Customer Service](#) | [Privacy Policy](#)
[Advanced Search](#) | [Orders and Returns](#) | [Contact Us](#)

agento Healthy - Report All Bugs (ver. 1.7.0.2)
ento Demo Store. All Rights Reserved.

198.1.93.43



www.plazathemes.com




Page: 1 2

NEWSLETTER

Lore ipsum dolor sit amet, cone detur



INFORMATION



Latest Performance Report for: <http://demo.mage-world.com/live/index.php?id=1>

 [Download PDF](#)

Report generated: Wed, Jun 26, 2013, 9:01 AM -0700

Test Server Region: Vancouver, Canada

Using: Chrome (Android, Galaxy Nexus) 26.0.1410.58, Page Speed 1.12.16, YSlow 3.1.6



Looks like you're running Magento
[Have a look at our Magento optimization tips »](#)

Summary

Page Speed Grade:
(55%) ↓



YSlow Grade:
(72%) ↓

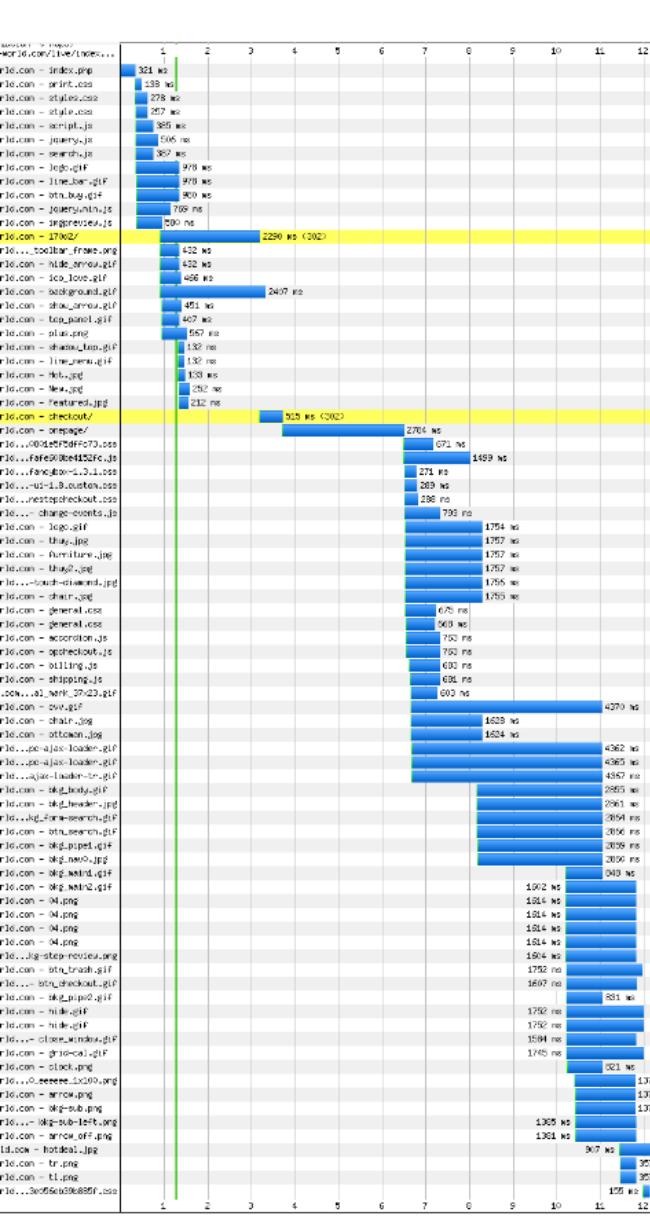


Page load time: 14.53s

Total page size: 676KB

Total number of requests: 83

Options



Latest Performance Report for:
http://www.plazathemes.com/demo/ma_de...

Report generated: Wed, Jun 26, 2013, 9:01 AM -0700
Test Server Region: Vancouver, Canada
Using Chrome (Android: Galaxy Nexus) 26.0.1410.58, Page Speed: 1.12, YSlow: 3.1.6

Looks like you're running Magento
Have a look at our [Magento optimization tips](#).

Summary

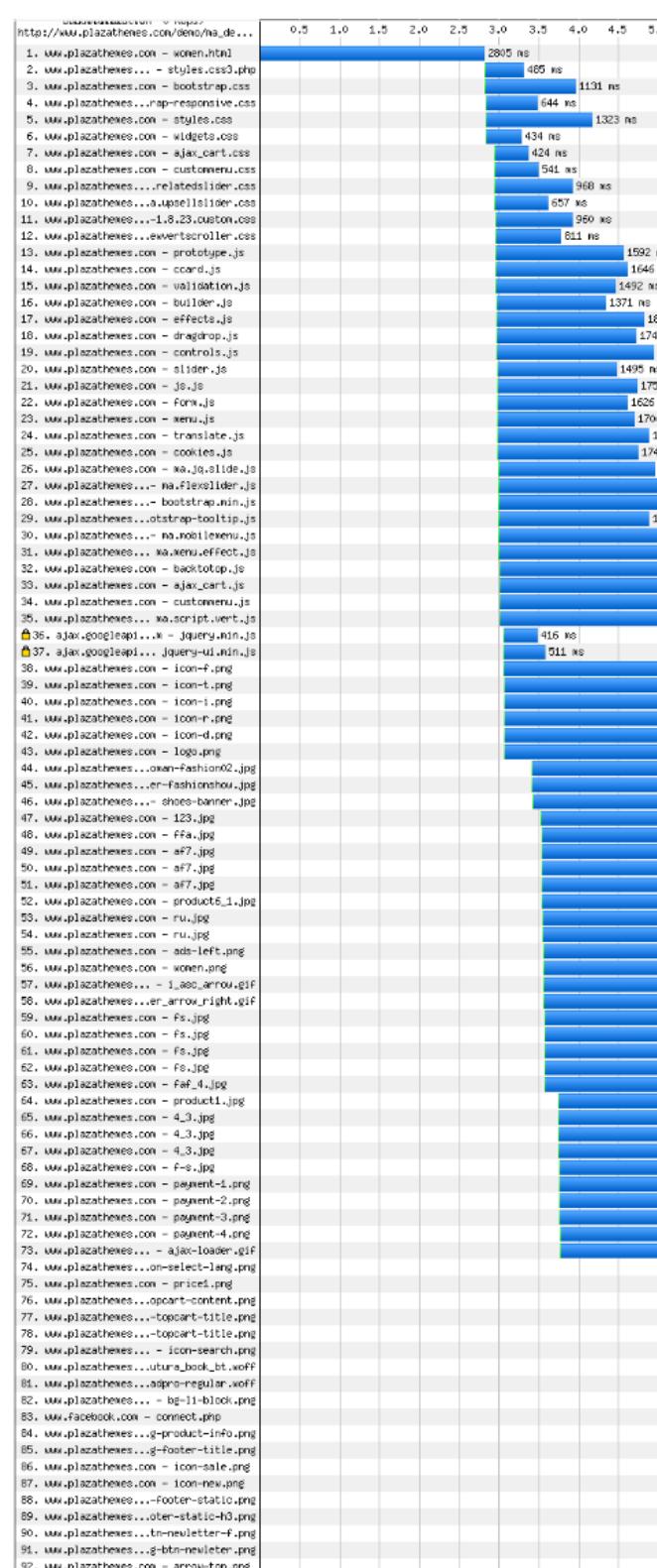
Page Speed Grade: E	YSlow Grade: C
Page load time: 14.53s	Total page size: 679KB
Total number of requests: 83	

119 requests | 2.6 MB transferred | 30.23s (onload: 7.33s, DOMContentLoaded: 4.30s)

Elements Resources Network Sources Timeline Profiles

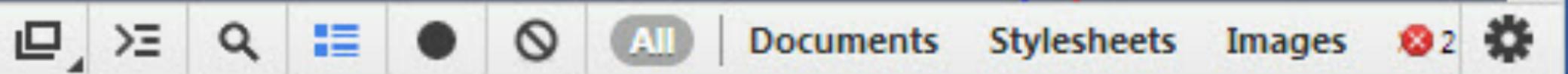
Name Path ... S... T... Initia... Size T... Timeline 2015: 30.23s

ajax-loa... /demo/ma...	GET 200 1... w... 847 337	...
bg-nav... /demo/ma...	GET 200 OK 1... 999 189	...
arrow-d... /demo/ma...	GET 200 1... ma... 101 180	...
arrow-u... /demo/ma...	GET 200 1... ma... 101 184	...
ui-bg_h... /demo/ma...	GET 200 1... wom... 131 200	...
ui-bg_g... /demo/ma...	GET 200 1... wom... 141 333	...
ui-bt... /demo/ma...	GET 200 Other 1... P... 100 100	...



	/demo/m...	GET	OK	...	Script	999	189	
	arrow-d...	GET	200	i...	ma.jq...	1....	1...	
	/demo/m...		OK		Script	101¢	180	
	arrow-u...	GET	200	i...	ma.jq...	1....	1...	
	/demo/m...		OK		Script	101:	184	
	ui-bg_h...	GET	200	i...	wom...	1....	2...	
	/demo/m...		OK		Parser	1.1†	280	
	ui-bg_g...	GET	200	i...	wom...	1....	3...	
	/demo/m...		OK		Parser	1.4†	333	
	bg-btn....	GET	200	i...	Other	(f...	P...	
	/demo/m...		OK					

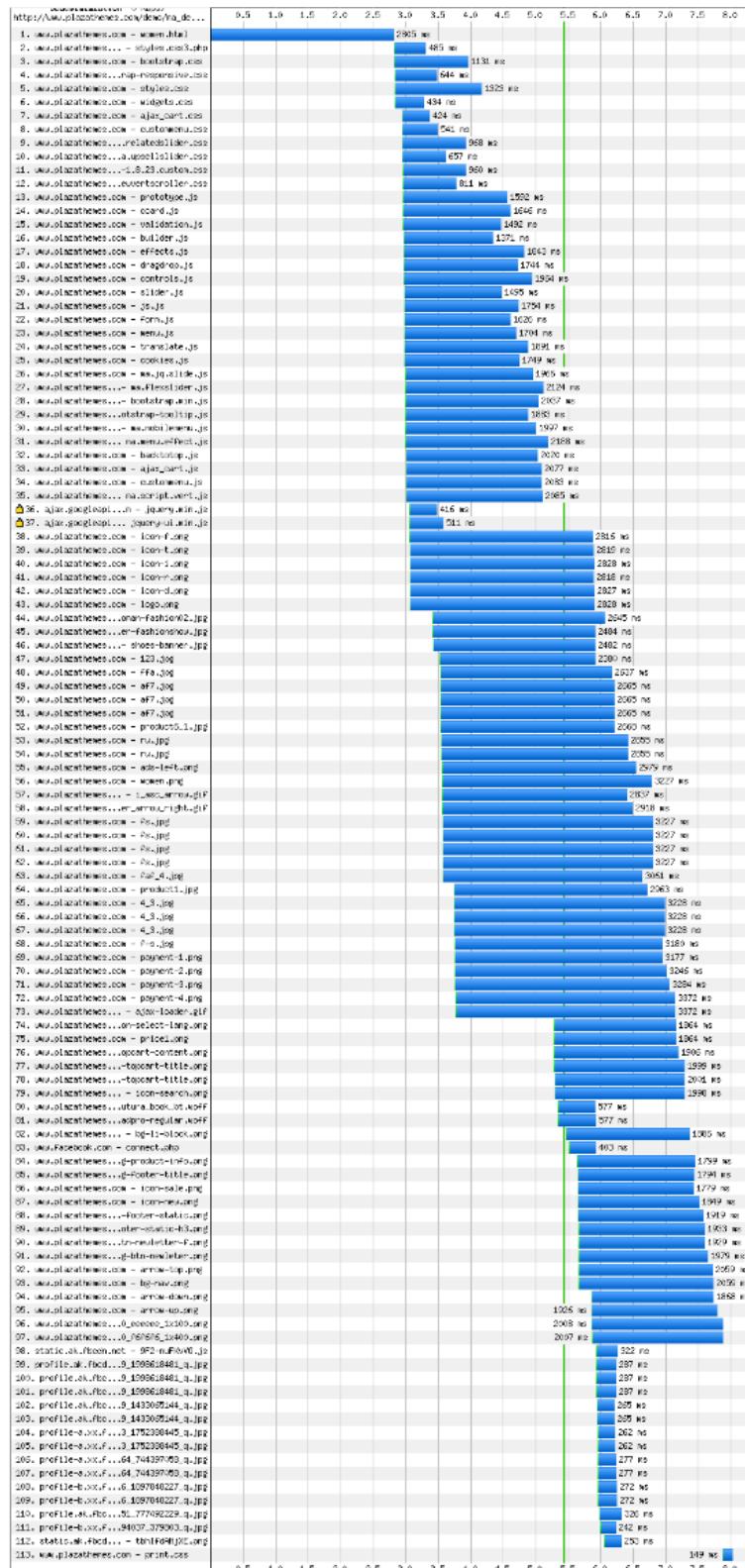
119 requests | 2.6 MB transferred | 30.23 s (onload: 7.33 s, DOMContentLoaded: 4.30 s)

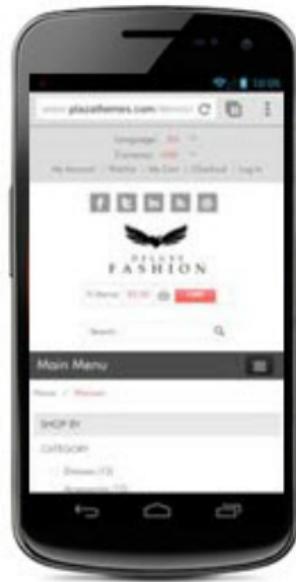
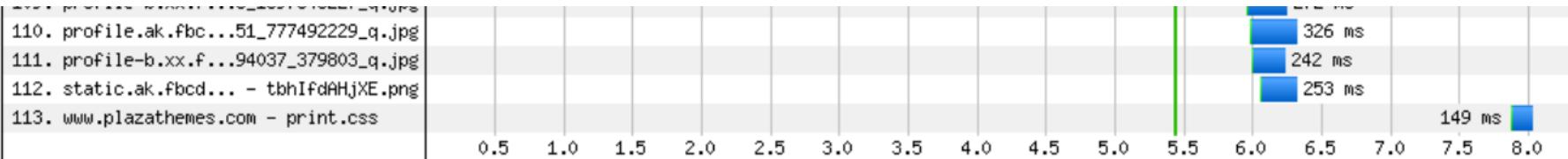


Screenshot of a web browser showing a fashion website. The page features two large images: one of a woman in white pants and another of a woman in a blue top and yellow skirt. Below the images is a newsletter sign-up form with fields for name and email, and a "SUBSCRIBE" button. A "NEWSLETTER" section follows, containing placeholder text. At the bottom, there's an "INFORMATION" section with a file size of 196.154.250.19 and a table showing network requests.

Name	Path	... Status	Start Time	Initial Size	Size Downloaded	Time Downloaded
ajax-load...	/demo/main	200	OK	wom...	1...	302.3s
bg-nav...	/demo/main	200	OK	main...	1...	302.3s
arrow-d...	/demo/main	200	OK	main...	1...	302.3s
arrow-u...	/demo/main	200	OK	main...	1...	302.3s
ui_bg_h...	/demo/main	200	OK	wom...	1...	302.3s
ui_bg_g...	/demo/main	200	OK	wom...	1...	302.3s
bg-blur...	/demo/main	200	OK	Other	1...	302.3s

119 requests | 2.6 MB transferred | 302.3s (load: 7.33s, DOMContentLoaded: 4.30s)





Latest Performance Report for: http://www.plazathemes.com/demo/ma_deluxe/women.html

[Download PDF](#)

Report generated: Wed, Jun 26, 2013, 10:05 AM -0700

Test Server Region: Vancouver, Canada

Using: Chrome (Android, Galaxy Nexus) 26.0.1410.58, Page Speed 1.12.16, YSlow 3.1.6



Looks like you're running Magento
[Have a look at our Magento optimization tips »](#)



Your page generation time is slow
[Find out why and explore possible solutions »](#)

Summary

Page Speed Grade:
(44%)↓



YSlow Grade:
(64%)↓



Page load time: 7.32s
Total page size: 2.83MB
Total number of requests: 114

Options

The image features a circular, radiating pattern of concentric arcs in shades of orange, yellow, and red, set against a dark blue background. Overlaid on this pattern is the text "That's all Folks!" in a white, cursive, handwritten-style font.

That's all Folks!

My name: Ray Bogman



- Joomla/Magento evangelist
- Trainer
- Performance nerd
- Security geek

@ SupportDesk.nu

<http://www.linkedin.com/in/raybogman>



Resources:

- <http://sixrevisions.com/javascript/mobile%C2%A0web-development-frameworks/>
- <http://caniuse.com/fontface>
- <http://blog.cloudfour.com/are-css-sprites-a-mobile-web-worst-practice/>
- <http://stevesouders.com/mobileperf/mobileperf.php>
- https://en.wikipedia.org/wiki/XHTML_Mobile_Profile
- <http://mobile.smashingmagazine.com/2013/01/09/bandwidth-media-queries-we-dont-need-em/>
- <http://www.igvita.com/2013/03/07/faster-smaller-and-more-beautiful-web-with-webp>
- <http://mobitest.akamai.com/m/index.cgi>
- <http://www.slideshare.net/jiraict/magento-mobile-seminar>
- <http://themeforest.net/item/deluxe-responsive-magento-theme/4778953>
- <http://demo.mage-world.com/live/index.php?id=1>