Usablenet

ADDRESSING THE
MOBILE
PERFORMANCE
PROBLEM
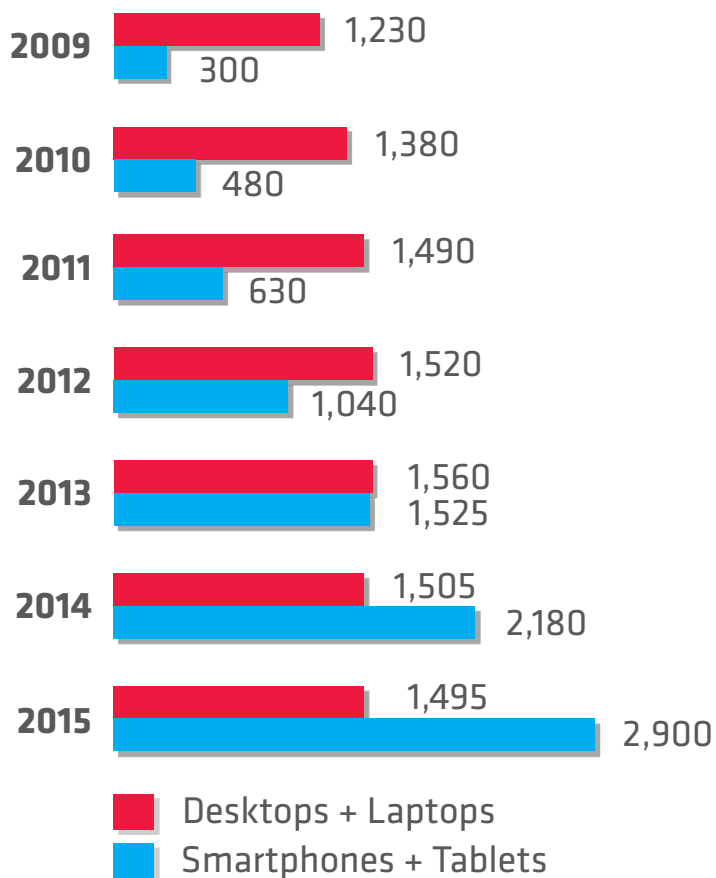
LOADING

%

Why Site Load Time Matters

Consumer behavior has shifted. Mobile sites are no longer just another digital touch point. Instead, a brand's mobile site has become the primary means of consumer-brand interaction, and brands have to take note.

It is not good to ask customers to pinch and zoom to view a website that has not been optimized for mobile. Desktop sites support a very different use case and processing large files on a mobile browser over constrained networks leads to slow page loads. Increasingly, users will abandon a web page that takes longer than 3 seconds to load, and 85% of users expect web pages to load as quickly on mobile devices as on desktop computers. This expectation, when not met, leads to a 16% decrease in customer satisfaction and a 7% loss in conversions for every single-second delay. It is incumbent on brands to create sites that are attractive and fast, and that cater to a range of use-cases across devices.
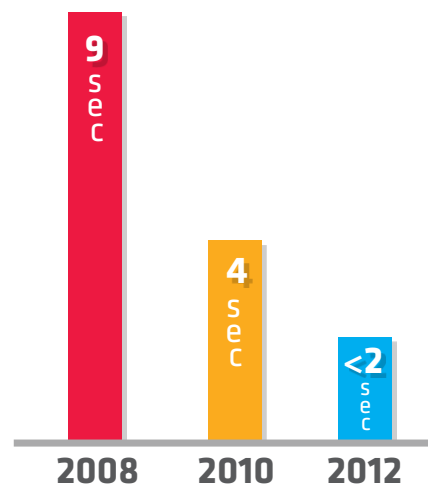
Although web traffic and network latency are often blamed for slow site speed, site weight and functionality play crucial roles in overall site performance. By choosing technology that ensures optimal site speed, brands can combine performance with ease of use, allowing the user to achieve their goals in an efficient and seamless fashion.

At the crux of good performance is usability, which ensures that the content and features of a site fit its respective use-case – thus ensuring an effective UI in order to deliver a great UX. Along with speed, usability is essential to a quality customer experience: a factor that affects not only customer satisfaction, but also customer loyalty and willingness to recommend a brand (CMO.com). It seems clear then that excellent performance and a user-centered focus should be a major factor in brands' site design approaches.

"Fixed" vs Mobile Internet Users Worldwide (x MM)

2009 1,230 / 300
2010 1,380 / 480
2011 1,490 / 630
2012 1,520 / 1,040
2013 1,560 / 1,525
2014 1,505 / 2,180
2015 1,495 / 2,900

🟥 Desktops + Laptops
🟦 Smartphones + Tablets

Average Time Expected to Fully Load a Website

2008: 9 sec
2010: 4 sec
2012: <2 sec

Source: Forrester Research

With mobile user expectations higher than ever, good performance has become key to delivering engaging customer experiences.

A Look at Current Mobile Design Choices

Dedicated M. Sites

Dedicated mobile sites, developed specifically to address the challenges of web access via mobile devices, can be approached in multiple ways. First, a dedicated m. site can be built, powered by APIs and a unique experience created to optimize the UI/UX for specific devices. Secondly, a transformative approach can be used when APIs are not available and a source such as a desktop site must be consumed to power the experience. Both approaches address the challenge of varying user contexts and network performance. In fact, many of the fastest mobile sites featured in the Keynote Mobile Index for Retailers are dedicated mobile sites. Dedicated mobile sites ensure a user- and device-tailored experience and offer a high level of control over the multichannel experience.

Mobile-Specific Site: The Body Shop's dedicated mobile site features a custom-designed homepage with a range of browsing options, a scrolling banner for promotions and a main menu feature for fast and effective search and site navigation. On average, the page loads in 5.5 seconds.
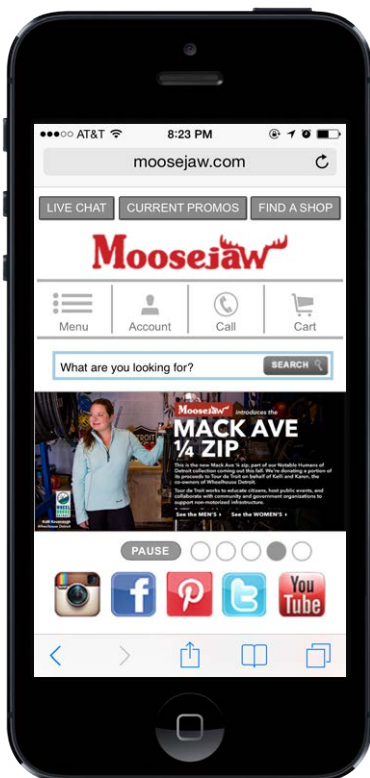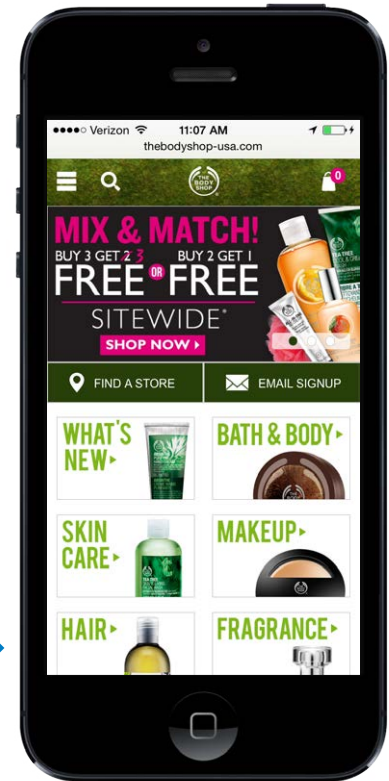
Responsive Web Design Sites

Responsive Web Design is a design approach that presents a single web experience across a number of different screen sizes. Unlike dedicated mobile sites, RWD downloads the entire desktop file to the mobile browser, and optimizes the experience by suppressing unnecessary elements. Using client-side detection, RWD creates a viewing experience consistent with the desktop, but where the layout is tailored to the device's screen dimensions.

Responsive sites download and process the same bulky content to a mobile device that would be downloaded to a desktop. This unnecessary page weight leads to slow speed and long load times, which can frustrate a user and inhibit performance and usability, especially on lower-end devices and on slower connections. Further, although it offers a consistent visual experience, RWD does not allow for a high degree of customization of content to support context of use in a personalized way.

Responsive Functionality: The Moosejaw mobile site does a good job of reformatting high quality images. However, the site is bulky and navigation has not been streamlined to aid discovery and speed task completion. The site's average load time is 13 seconds and it features lazy loading.

# Bridging the Gap between Presentation and Functionality

Existing mobile solutions have merely scratched the surface of the problem; the full extent of inadequate mobile performance has yet to be addressed. Responsive Web Design has provided good-looking yet slow sites while dedicated mobile sites have fast speed and good usability, but generally require more resources to manage. As user contexts demand a multi-device strategy, server-side solutions offer a promising means of addressing the mobile performance problem.

Server-side technology ensures that the device only processes what a user needs. Rather than downloading and simply hiding unnecessary content, server-side solutions optimize the data layer before any content reaches the browser: delivering the level of speed today's mobile users crave. Adaptive Delivery is a more sophisticated means of improving site performance by implementing solutions that optimize sites for mobile.

With Adaptive Delivery, multiple mobile experiences can be supported by a common data layer. Due to this solution's unique front-end, the mobile experience can be customized for different devices. Built in this way, the server detects a user's device and delivers a lightweight mobile UI designed for that particular device, downloading only the content needed to constitute the optimized site. Adaptive Delivery thus decreases page weight and delivers agile maintenance because changes can be made to any device-specific web page without impacting every other device.

Adaptive Delivery taps into the essential dilemma between client-side and server-side solutions: the question of how to effectively distribute site load between server and browser. It offers an improvement on the shortcomings of RWD by using server-side technology to provide the speed many responsive sites lack.

Streamlined Navigation: The purchase and browsing options on J Crew's mobile site (a site with an adaptive front-end and a responsive checkout) are immediately visible to the customer—and require almost no scrolling to view all options. From those who are simply browsing, to those with a specific task in mind, all PDP options are accessible from the home page, without a single page refresh. The J Crew mobile site loads, on average, in 3 seconds.
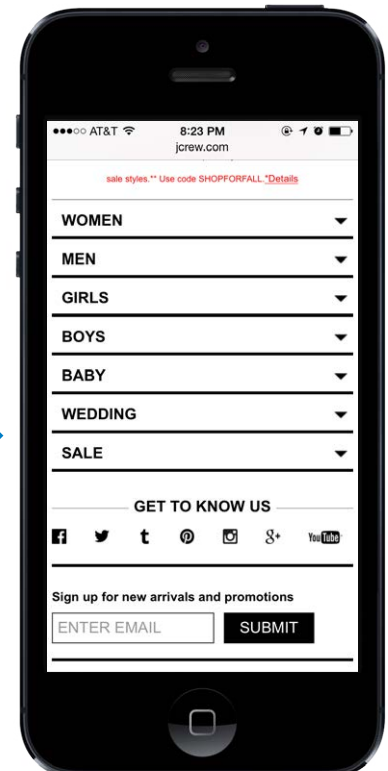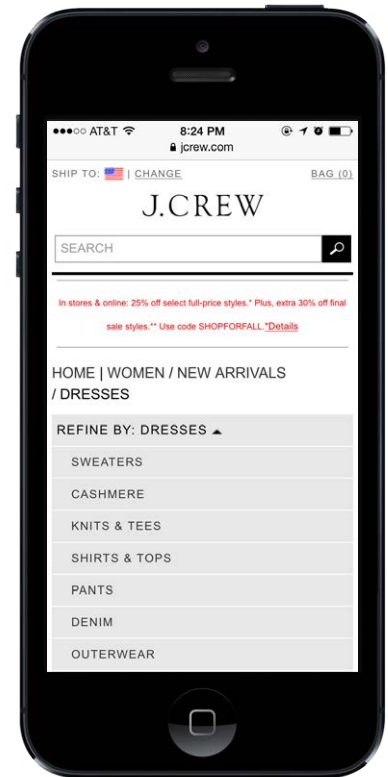
Choosing the Best Approach:
What to Consider

The rapid growth of mobile has broadened the way in which consumers access and utilize the web, creating both the demand for and the expectation of exceptional performance across all platforms. Delivering great mobile performance, however, has proven to be an increasingly difficult task. If websites continue to expand in size at the 40% year-over-year growth rate we have seen since 2010, inadequate mobile performance will only pose more of a challenge. Brands must take into account a variety of factors in order to implement the solution best tailored to their needs.

Starting points and end goals

Mobile goals will differ from brand to brand and across industries. Marketers must take both long and short term goals into account when choosing a mobile development strategy. Transactional sites with commerce functionality, such as retail sites, have different needs from those sites that are largely informational. Brands with complex needs might need a more sophisticated solution like Adaptive Delivery to simplify and streamline user journeys, while text-heavy sites may easily and affordably benefit from a solution like RWD.

Marketers must also take into consideration their brand's current mobile strategy. For a site with no mobile presence, a redesign of the desktop site using RWD is fitting. However, a web site already using RWD could benefit from incorporating adaptive pages into the responsive front-end to increase site flexibility. In short, it is just as important to choose a brand-specific, goal-oriented solution as it is to choose an effective one.

Resource quality and availability

While brands may have lofty goals for the improvements they want to make to their mobile strategy, they must also be realistic about maintaining achievable goals. The availability of internal resources for mobile is vital to determining the right mobile strategy. Implementation and maintenance of multiple sites allows for maximum digital marketing flexibility and customization of customer experiences, but would be more attainable for brands with the appropriate resources. Brands with fewer resources, on the other hand, may benefit from implementing RWD to create internal efficiencies. Additionally, the quality of internal resources is a key factor in choosing the right mobile solution. Developing solutions in-house could be more-cost effective than outsourcing, but requires a skilled development team with the right expertise and time to implement. Both the skill sets and the cost required for a mobile strategy dictate which solution is best suited to a particular brand.
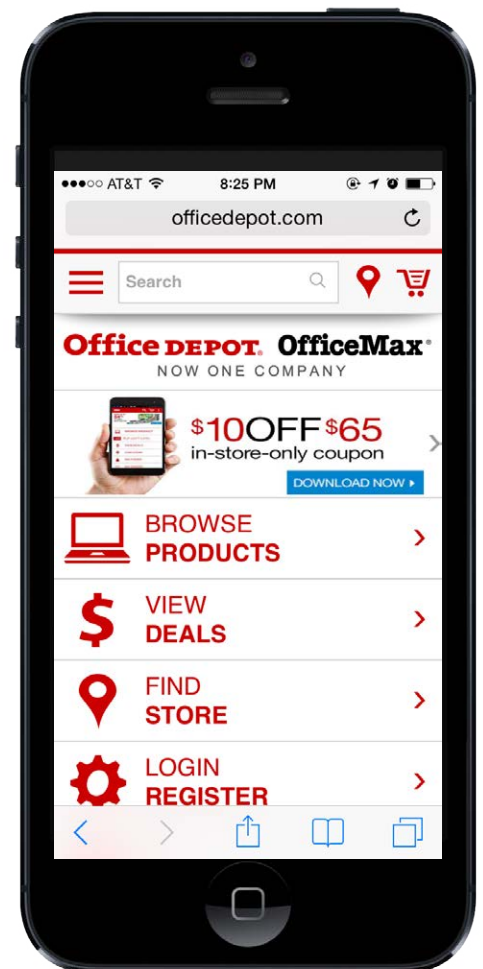
Office Depot has begun to adopt adaptive solutions, though it still branches out onto a separate page after the homepage. Office Depot's mobile site is an easy-to-navigate, sleek site with an average load time of 1.5 seconds.

Scalability and Flexibility

The need for frequent changes or updates to the desktop and mobile site may make clear a need for a more efficient mobile solution to minimize change management and reduce cost. Brands must weigh the extent to which they seek active mobile engagement with their customers, and therefore evaluate the need for tools and infrastructure to enable frequent mobile marketing campaigns and promotions. The mobile strategy and choice of solution should be tailored to the degree of engagement and customization required on mobile.

Collaboration between Marketing and IT

Collaboration between IT and Marketing teams is key to identifying and executing the steps needed to implement the ideal mobile solution.

While marketers are vital to understanding the customer and managing the brand experience, IT professionals support the development of the necessary technologies to implement these strategies. Effective communication between these teams, and collaboration toward a common end goal will ensure seamless planning and execution of the right mobile solution.
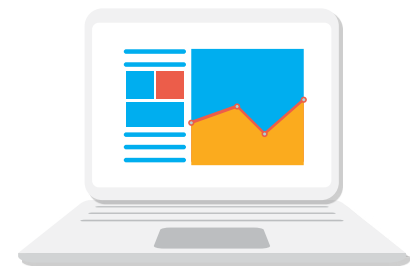
Overall, there is no universal solution to the mobile performance problem. While Adaptive Delivery delivers server-side advantages, there is merit in dedicated mobile sites or pure RWD approaches, depending on the brand use-case. Ultimately, the choice of solution for marketers must be a brand-specific one, as the ideal solution should meet business, brand and customer expectations. As mobile continues to evolve, marketers must determine which approach or combination of approaches would balance internal resources for development and maintenance, while delivering the most long-term benefits for the customer and the brand.

About Usablenet

Usablenet is a global leader in mobile and multichannel technology. Usablenet's powerful platform enables leading companies in all sectors to create compelling experiences for their customers across multiple channels, including mobile, tablet, and in-store kiosks. Usablenet customers include Marks & Spencer, ASOS, JCrew, CVS Caremark, FedEx, Dell, JetBlue and The Ritz Carlton. Founded in 2000, Usablenet is a private company headquartered in New York City with offices in Los Angeles, Italy and London. For more information, visit www.usablenet.com or on Twitter @Usablenet.

Usablenet

142 West 57th Street,
7th Floor
New York, NY 10019
P: +1.212.965.5388
F: +1.212.965.5391