> "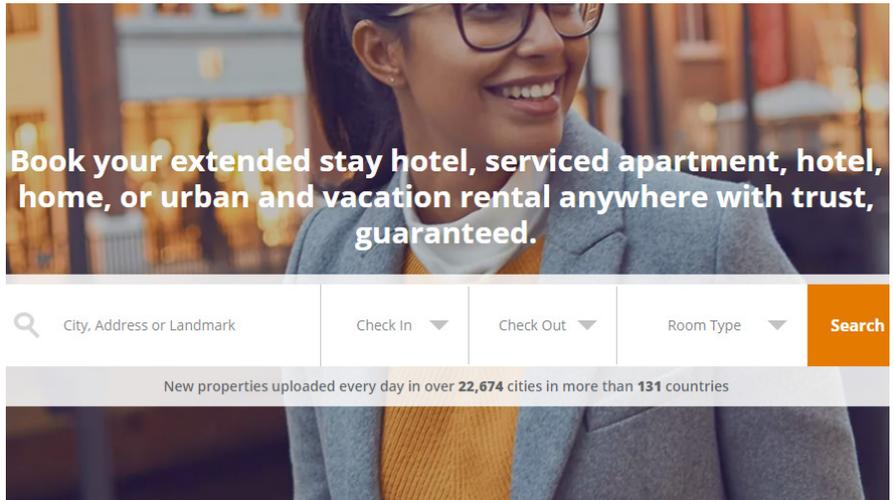We had huge improvements in load times for BridgeStreet.com, average an acceleration of 35% in mobile and 50% in desktop for Google PageSpeed Insight. Plus, ImageEngine by ScientiaMobile's support was fantastic, offering both guidance from the technical team during implementation and, more recently, as we focused on optimizing mobile."
>
> **AARON TURNER,**
> CTO, BridgeStreet.com

B R I D G E S T R E E T . C O M

Global Hospitality Site Improves Speeds and Quality

BridgeStreet.com is the first unified technology platform built for business travel and has properties in more than 22,674 cities in over 131 countries. BridgeStreet.com offers clients unparalleled access to extended stay hotels, hostels, services apartments, vacation rentals, homes, and hotels while providing operators access to built-in demand from BridgeStreet.com's 5000+ client portfolio and 100+ global sales team.

As a company that is highly reliant on online booking for sales, BridgeStreet.com knows that decreasing their page load time is critical for attracting and keeping shoppers on their site.

BridgeStreet.com's global hospitality network and high-quality images caused problems for slow loading pages especially on mobile. Additionally, BridgeStreet.com had to figure out how to overcome issues for regions with slow mobile network service for fast mobile user experience (UX). How can an image-intensive hopitality platform speed up its UX for mobile-based customers around the globe? BridgeStreet.com evaluated and chose ImageEngine by ScientiaMobile. BridgeStreet's extensive tests showed that ImageEngine effectively tailors images to each mobile device and delivers them quickly through its content delivery network (CDN).
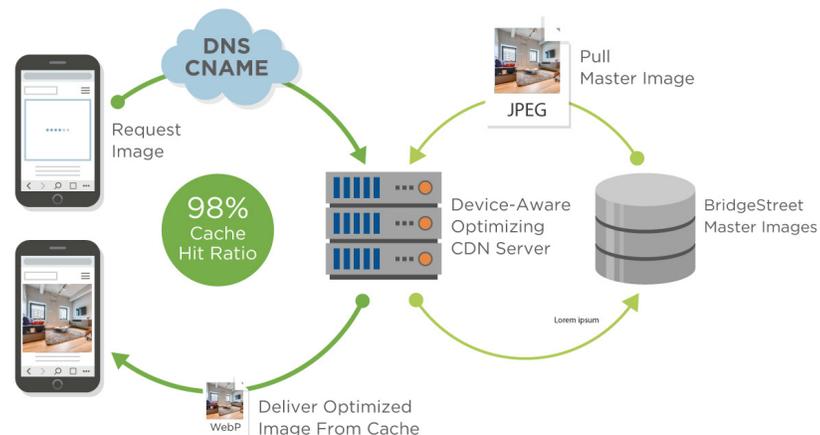
Here's what they found...

The Problem

For BridgeStreet.com, a global hospitality platform, they had problems with displaying images and content in all sorts of regions, including some regions with slow mobile network service. Plus, with many pages displaying various apartments and commercial real estate rentals, these images needed to scale for different variations in mobile, tablet, and desktop screen sizes. BridgeStreet.com needed a solution to accelerate their website, improve conversions, and control future CDN operating costs.

A major opportunity for improving website speed was to reduce BridgeStreet.com's image payload without sacrificing image quality. Higher resolution and file size did not yield perceptible differences in user experience. If BridgeStreet.com could reduce their image payload, then pages would load faster.

The ImageEngine Solution

BridgeStreet.com tested ImageEngine's resizing CDN service to address their image acceleration challenges. ImageEngine is unique because it seamlessly combines three services.

First, ImageEngine leverages ScientiaMobile's WURFL device detection to identify the devices coming to BridgeStreet.com's website. Once detected, ImageEngine uses intelligence about the device to drive image resizing and compression. For example, the ImageEngine detects screen and viewport dimensions, screen resolution (PPI ratio), operating system, and image file types supported. It pro-

actively detects device information without using slow, cumbersome javascript.

Second, ImageEngine leverages this device information to automatically resize, convert, and compress images in real-time. It resizes only when images are requested. ImageEngine also caches images, so there is no need to resize them for subsequent requests from identical devices.

Third, ImageEngine uses its global image CDN with device-aware edge servers. This means that ImageEngine's logic is pushed to the edge of its global network. Images are cached as close to customers as possible, resulting in a 30% faster mobile and a 50% faster desktop Google page speed score.

The Deployment

BridgeStreet.com operates its website on the Sitecore CMS platform. ImageEngine provides a simple integration process to start processing the images served by the ScientiaMobile CDN. BridgeStreet.com started their roll-out of ImageEngine by performing A/B tests on specific mobile devices.

Immediately, BridgeStreet.com saw a speed improvement when measuring using independent third-party tools like Google PageSpeed Insights. They tested on different devices and operating systems and were able to see a very good image quality across all the devices they tested.

No additional development time was needed to implement ImageEngine because BridgeStreet.com's application was already designed to use a CDN. The switch from their old CDN to BridgeStreet's new CDN with ScientiaMobile was seamless.

BridgeStreet.com reduced their total image payload, which improved performance and lowered CDN costs. Originally, total image payload was 214.35 GB per week on BridgeStreet.com. After implementing ImageEngine, BridgeStreet.com generated less than 43 GB per week, which was a huge reduction of 79.97% savings in image payload delivered.

BridgeStreet.com previously served only a couple variations of large images to all devices. After switching to ImageEngine and serving multiple versions optimized for each requesting device, BridgeStreet.com saw an average page load time acceleration of 30% on mobile and 50% on desktop.

ImageEngine's simplicity and ScientiaMobile's 24/7 support made this roll-out quick and streamlined. ScientiaMobile's support team not only helped ensure a

BENEFITS

- **Faster Page Loading:** Accelerate your website and decrease image payload by more than 60%

- **Generate Higher Conversions:** Lower bounce rate for more revenue

- **Streamline Image Management**: Simplify process by 90%

- **Smart Bytes = CDN Savings:** Pay only for optimized image bandwidth and reduce operating costs

- **Adaptive Image CDN:** Automatically detect mobile devices, adapt images, and cache them for faster performance

- **Simple Deployment:** Easy integration with eCommerce platforms

smooth transition during implementation, but they also helped BridgeStreet later on as they started to focus on optimizing more for mobile.

The Results

After running ImageEngine, BridgeStreet.com achieved a 79.97% savings on their image payload. On a weekly basis, BridgeStreet.com's image payload was reduced by more than 171.42 GBs, resulting in major CDN cost savings and increase in mobile visits.

Through use of next-gen image formats like WebP and JPEG 2000, Bridgestreet was able to dramatically reduce payload. Images converted to WebP had an average of 94% payload reduction. Likewise JPEG 2000 provided a 69% savings.

Internally, the simplification of the image workflow for the BridgeStreet.com team enabled their IT and DevOps staff to focus on more strategic eCommerce issues.