

section.io is the only website performance, scalability and security solution which gives developers complete, code-level control over reverse proxy configuration, testing, and global deployment. With core performance features including HTTP/2 plus Varnish Cache that can be to easily configured to cache dynamic content, section.io ensures websites are fast and scalable.



PRODUCT SHEET

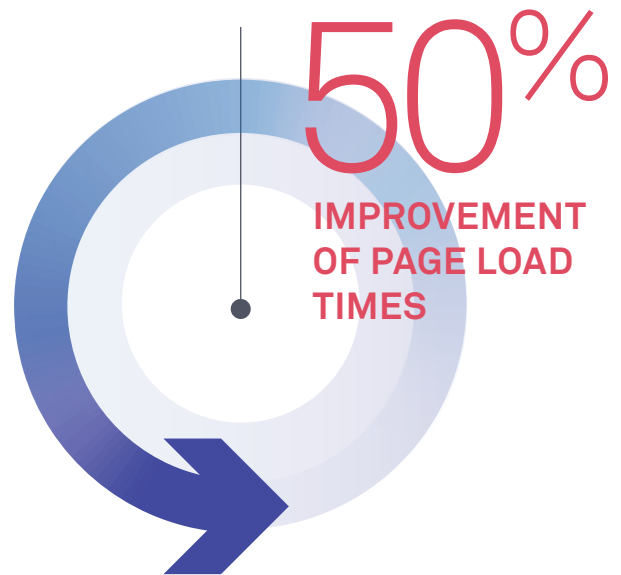
Website Performance

The ability for a website to load pages quickly at any volume of visitors has a direct impact on user experience, bounce rate, page views, and conversion rate. section.io dramatically improves website performance on all devices using a Global Content Delivery Grid, dynamic content and HTML doc caching, and Front End Optimization options.

CORE PERFORMANCE FEATURES

section.io speeds up page load times and improves website scalability by serving your traffic through a modern, secure Content Delivery Grid and caching both static and dynamic content. This results in:

- Faster page load times on desktop and mobile
- The ability to serve more visitors at once
- Reduced load on website origin servers
- Improved SEO through faster TTFB
- Improved security through traffic overload prevention and HTTPS + HTTP/2 for all pages



Content Delivery Grid

section.io's global content delivery grid consists of 24 modern Points of Presence (PoPs) spread throughout North and South America, Europe, Asia and Australia. Built on the foundations of AWS EC2, section.io's network delivers superior connectivity and peering, elastic scalability, reliability, PCI compliant infrastructure and network-level attack protection.

section.io places PoPs strategically along the Internet backbone and enables caching of both static and dynamic content so that your website will be delivered to global visitors quickly. In addition, by having fewer, stronger PoPs than legacy CDNs you will achieve a higher cache hit rate and reduced load on your origin servers.

HTTP/2 and HTTPS

All traffic on section.io is served over HTTP/2, the first major update to the communication protocol HTTP. HTTP/2 is a major improvement over HTTP/1 in terms of performance for modern, content-heavy websites, as it allows browsers to gather more content from website servers at the same time.

All HTTP/2 sites must also be running on HTTPS. section.io provides all users with a unique SSL/TLS certificate which we manage for you so it never expires. In addition to the security benefits provided through HTTPS encryption, having your website be HTTPS capable also means that it is more attractive to search engines and can improve your SEO and rankings.

Varnish Cache for Dynamic Caching

section.io uses Varnish Cache for both static and dynamic content caching. Varnish Cache is a lightning-fast HTTP accelerator which speeds up content delivery and allows for caching of static objects and dynamic content including HTML documents. section.io provides users with a choice of Varnish Cache v3, v4, or v3 with Magento Turpentine.

All Varnish versions are provided to users unmodified so they can be directly edited within the section.io portal for maximum caching benefit. section.io also provides a Graphical User Interface to turn on basic caching in just one click.

Because section.io includes a local testing environment, developers are able to cache dynamic content and HTML documents without the risk that issues will arise in production. By caching of more content and HTML documents, the Time to First Byte will be significantly reduced and users will see content in their browsers more quickly.

Traffic Overload Prevention

In addition to the increased scalability section.io provides, our Traffic Overload Prevention feature allows you to set a limit on the number of visitors who can reach your site at any one time. This feature is useful if you are looking for extra protection against DDoS or DoS attacks or want to control visitor numbers to your site during a busy period.

Real Time Logs and Alerts

section.io uses Kibana logs to give you request/response logs available within 10 seconds so you can view logs and troubleshoot in real time. This enables you to extract the maximum cache hit rate from section.io, establish a faster development cycle and fix production issues immediately.

The metrics within our platform give you an aggregated view of how your application is performing including hit and miss rates by content type, time to serve by cache hit/miss/pass status, time to serve by response code and throughput by response code.

FRONT END OPTIMIZATION

In addition to the performance features all section.io users get, we offer advanced Front End Optimization through the use of Google's PageSpeed module which is deployed on section.io's globally distributed network. This module brings many front end optimizations into one tool so you can easily turn on and off the ones that work for your website.

Image Optimization

PageSpeed optimizes all common image file types by compressing them so that visitors receive images that work best with their device type and browser. PageSpeed can also re-size images on the fly to match HTML sizing, change the image file type if necessary, extend image caching, and inline images directly into the HTML or CSS, which reduces the number of server requests.

Browser Rendering Optimization

The way content is rendered in a user's browser can lengthen front end load time. PageSpeed offers several browser rendering optimizations that ensure that the most important content is loaded first. Lazy-loading of images delays the loading of images below-the-fold until content above-the-fold and other critical resources have been rendered.

PageSpeed also enables JavaScript deferral, which holds back JavaScript from executing until the page has loaded. This module also converts meta-tags, rewrites style attributes, makes images responsive, and enables inline preview of images to speed up browser rendering.

Hosted DNS

section.io offers a globally distributed hosted DNS service which leverages a highly scalable Anycast network. This service is included with all section.io accounts. By routing your DNS queries to the closest data center, we speed up DNS connection time and improve overall website performance.

section.io hosted DNS is fast to implement, easy to manage, and offers performance and security benefits to your website. All routing and configurations for your DNS and CDN will be accessible in one place, giving you full control and transparency into the backbone of your website.

Minimize Round Trip Times

Reduce round trip times by combining and flattening CSS files, combining JavaScript to reduce the number of HTTP requests made by the browser, and adding small JavaScript resources directly into the HTML document. PageSpeed can also combine background image files into one (Image spriting), and pre-resolve DNS to speed up the DNS lookup time.

Minimize Payload Size

In addition to image optimization, PageSpeed minimizes the payload size through other techniques including collapsing whitespace, combining heads, minifying JavaScript and rewriting CSS. PageSpeed also prioritizes critical CSS, removes quotes and comments and rewrites style attributes so the payload is smaller.

By reducing the size of the HTML document, images, and ensuring critical information is loaded before non-critical objects, your pages will load more efficiently.

GET IN TOUCH

To speak with section.io and set up a demo of our platform please contact sales@section.io or call +1-844-325-9500.