



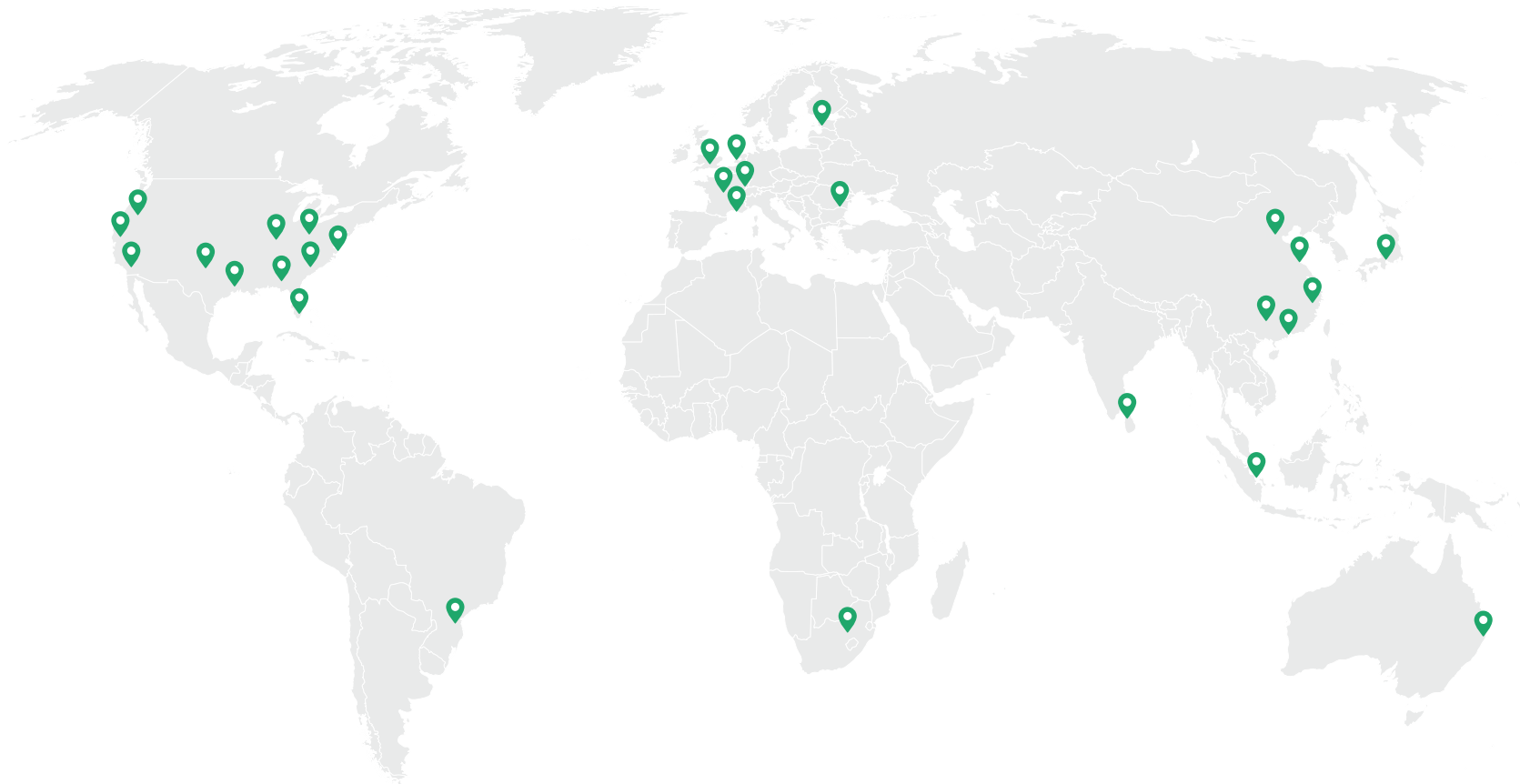
What will you create?

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



Web Application Performance

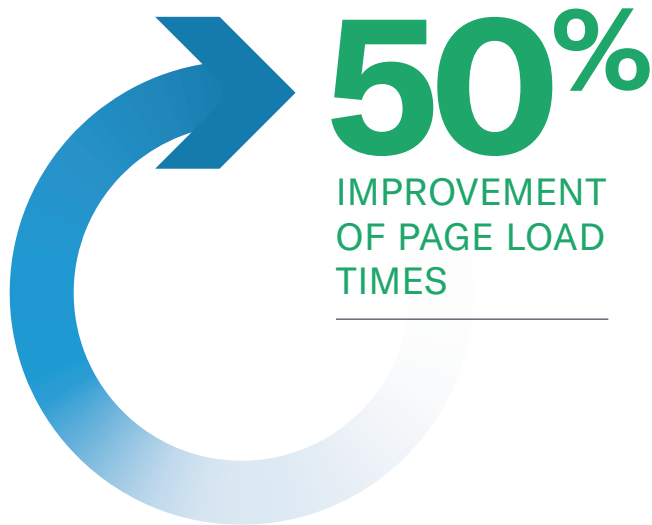
The ability for an application to load pages quickly at any volume of visitors has a direct impact on user experience, bounce rate, page views, and conversion rate. Section's edge compute platform not only serves traditional CDN workloads to improve application performance across all devices, but goes beyond this by enabling dynamic content caching and HTML streaming at the edge to deliver optimal user experiences.



Core Performance Features

Section speeds up page load times and improves website scalability by serving your traffic through a modern and secure optimized global delivery network and caching both static and dynamic content at the edge. 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 plus HTTP/2 for all pages**



Optimized Global Delivery Network

Section's global delivery network includes over 100 Points of Presence (PoPs) throughout North and South America, Europe, Asia and Australasia. Built on the foundations of AWS, Azure, Packet, Digital Ocean, Google Compute Engine, and others, with more hosting providers being added regularly, Section's network delivers superior connectivity and peering, elastic scalability, reliability, PCI-compliant infrastructure and network-level attack protection.

Section places PoPs strategically along the Internet backbone and enables caching of both static and dynamic content so that your application will be rapidly delivered to visitors globally. 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 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 web applications, as it allows browsers to gather more content from servers simultaneously.

All HTTP/2 applications must also be running on HTTPS. Section provides all users with a unique SSL/TLS certificate which we manage for you so that it never expires. In addition to the security benefits provided through HTTPS encryption, having an HTTPS-enabled application has inherent SEO value.

Varnish Cache for Dynamic Caching

Section uses Varnish Cache for both static and dynamic content caching. Varnish Cache is an open source, lightning-fast HTTP accelerator that speeds up content delivery and allows for caching of static objects and dynamic content, including HTML documents.

Section gives users the flexibility to employ any version of Varnish Cache at any any time. All Varnish Cache versions are provided to users unmodified so they can be directly edited within the Section portal for maximum caching benefits. Section also provides a Graphical User Interface (GUI) to turn on basic caching in just one click.

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



Traffic Overload Prevention / Virtual Waiting Room

In addition to the increased scalability that Section provides, our Virtual Waiting Room module allows you to set a limit on the number of visitors who can reach your application at any one time. This feature is useful if you are looking for extra protection against DDoS or DoS attacks or want to control application slow-downs and/or outages during a busy traffic period.

Real-Time Logs, Alerts and Metrics

Section uses Kibana logs to provide request/response data within 10 seconds so that you can view problems and troubleshoot in real time. This enables you to extract the maximum cache hit rate from Section, establish a faster development cycle and fix production issues immediately. The metrics within our platform display 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
- Throughput by response code

Hosted DNS

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

Section-hosted DNS is fast to implement, easy to manage and offers performance and security benefits for your application. All routing and configurations for your DNS and edge delivery will be accessible in one place, giving you full control over and transparency into the backbone of your application.

Front-End Optimization

In addition to the default performance features that are included on all Section accounts, we also offer advanced front-end optimization through the use of edge container modules which are deployed on Section's globally distributed network, such as PageSpeed, Kraken, and Cloudinary, to name a few. These modules make many front-end optimizations available so that you can easily turn on and off the ones that work for your application.

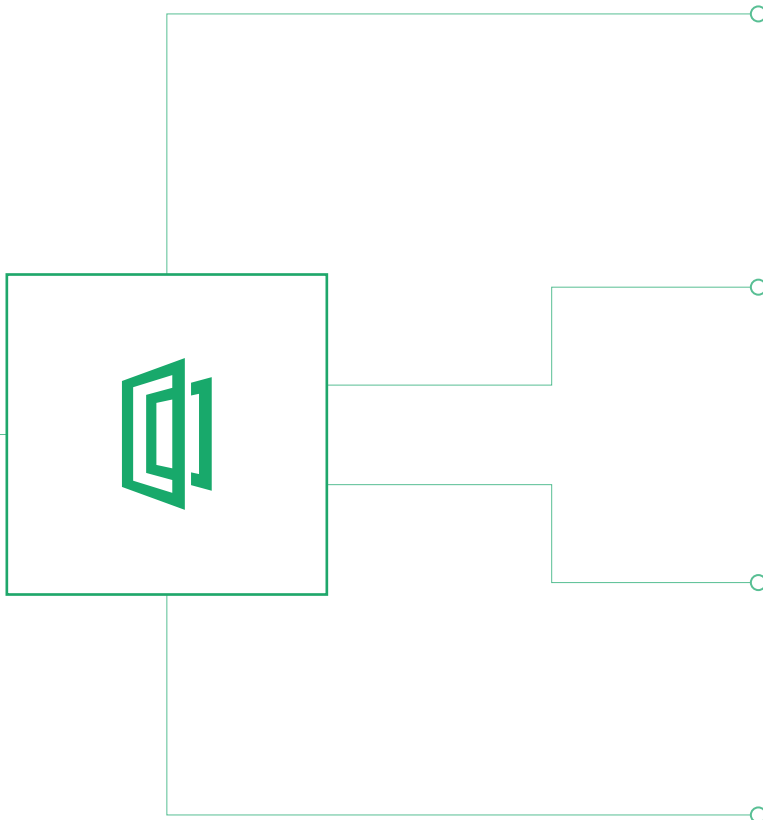


Image Optimization

Image optimization modules, such as those offered by PageSpeed, Kraken, and Cloudinary, optimize all common image file types by compressing them so that visitors receive images that work best with their device type and browser. Each of these modules can also resize 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. The PageSpeed module offers several browser rendering optimizations, which 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. JavaScript deferral holds back JavaScript from executing until the page has loaded. Other browser rendering acceleration features include meta tag conversion, rewriting style attributes, responsive image generation and in-line previewing of images.

Minimize Round Trip Times

The PageSpeed module reduces 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, the PageSpeed module minimizes the payload size through a range of 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 and images, and by ensuring critical information is loaded before non-critical objects, your pages will load more efficiently.