Essential HTML Caching

Most CDN's provide the ability to cache static content (such as images, JavaScript and CSS). section.io is unique in its ability to provide a framework for caching HTML documents.

WHY CACHE HTML?

The HTML document is the first piece of information that a web browser receives when loading a web page. This document is the key to the page text, look and feel and also contains references to other items (such as images) that are needed to complete the fully visible page.

SO WHY CACHE HTML DOCUMENTS?

HTML document delivery is the key first step to any page load.

If the HTML document is delivered slowly it doesn't matter how fast the other content is delivered, the user experience is already a poor one.

PERFORMANCE

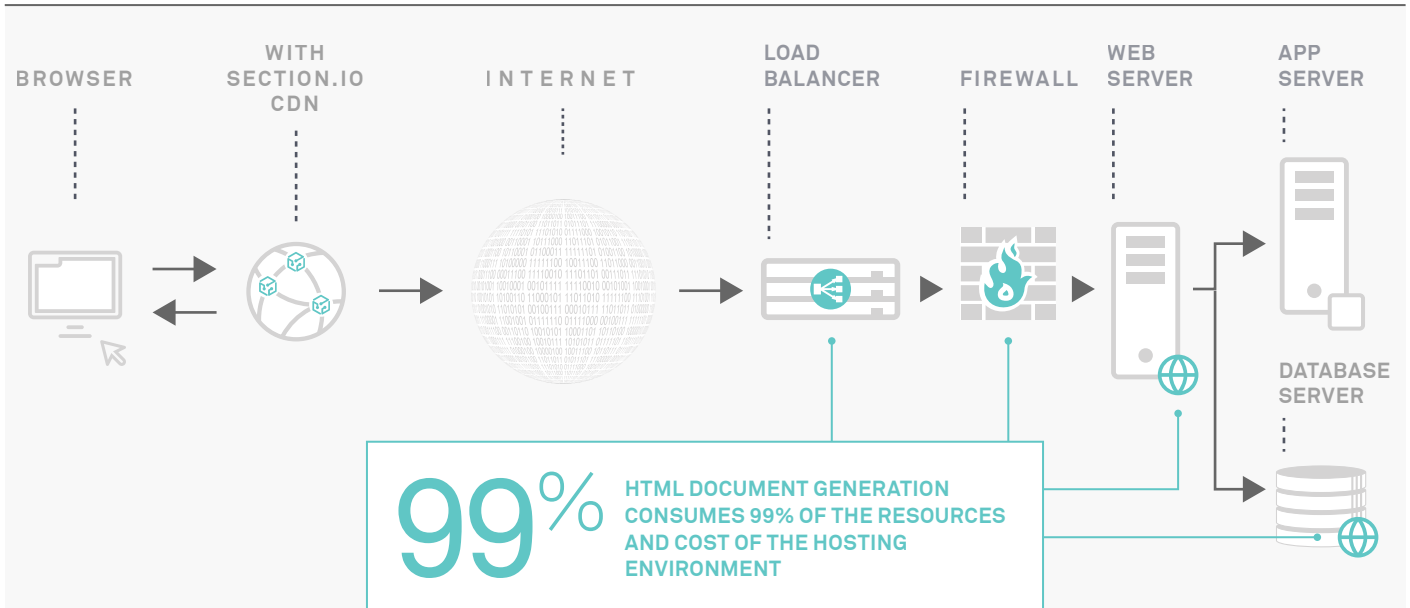Fast delivery of the HTML document is critical to any overall fast website.

AVAILABILITY

For a website to remain highly available under high traffic volumes (especially peak media and sales events) the number one thing you need to do is reduce the consumption of resources in your environment.
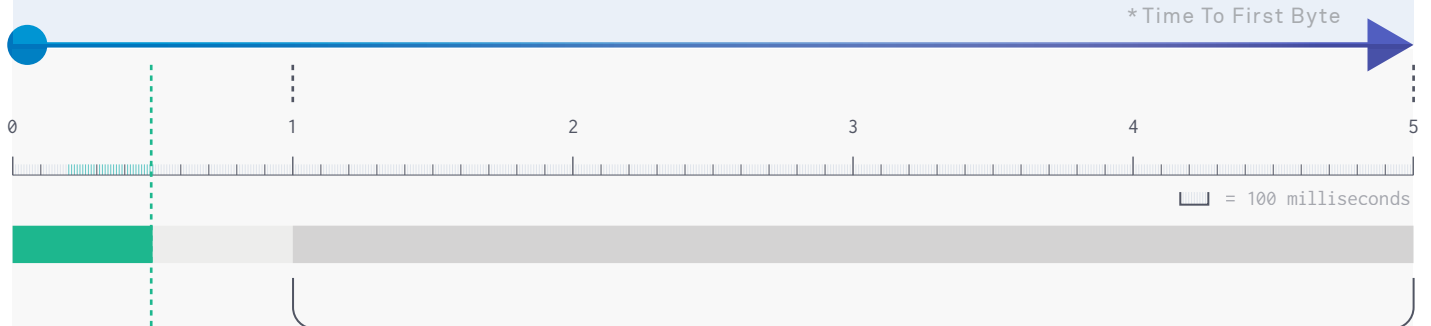
The process to generate HTML documents is where all of your server resource time is spent. Storing HTML documents in the section.io CDN totally removes the resource consumption from your servers and infrastructure.

HTML DOCUMENT GENERATION

THE HOSTING ENVIRONMENT

BROWSER

WITH SECTION.IO CDN

I N T E R N E T

LOAD BALANCER

FIREWALL

WEB SERVER

APP SERVER

DATABASE SERVER

99% HTML DOCUMENT GENERATION CONSUMES 99% OF THE RESOURCES AND COST OF THE HOSTING ENVIRONMENT

PAGE LOAD TIME HTML Document Response Time aka TTFB*

* Time To First Byte

0   1   2   3   4   5

= 100 milliseconds

section.io

AVERAGE LOAD TIME

20 MILLISECONDS*

5 SECONDS*

1000 MILLISECONDS = 1 SECOND

*TO 50 MILLISECONDS

*FROM 1 TO 5 SECONDS

section.io CDN

SECURITY

Storing HTML documents in the section.io CDN has several security benefits:

> Denial Of Service attacks that attempt to consume server resources fail as the section.io platform responds to all requests for HTML documents instead of your servers

> You have the option to deploy a WAF (Web Application Firewall) inside the section.io CDN

> You are protected by section.io's DDOS solutions

TRUE ORIGIN SHIELD
Several traditional CDN's claim to provide an "Origin Shield" feature which is essentially a caching layer infront of your servers.

The problem with traditional CDN's is that they don't cache HTML documents. HTML documents are the largest consumer of resources on your servers and hence are the largest risk/threat. The section.io CDN caches both static content and HTML documents to provide a true entire site Origin Shield.

ESSENTIALS FOR CACHING HTML

section.io is the only CDN that provides the toolset required, traditional CDN's lack most of these features.

To be able to effectively cache HTML documents there are several key components to a successful solution:

> The ability to develop CDN configurations locally on your laptop
> The ability to test CDN configurations through your test environments
> Real time metrics
> Visibility of HTML document cache performance
> Access to logs of every request to enable ongoing tuning / optimization

HOW TO CACHE HTML

Caching a HTML document requires the ability to implement flexible configurations in your CDN and also test these configurations before go live

There are a number of methods available to implement HTML caching:

> Cache all HTML documents
> Cache HTML documents that are generic (can be shared amongst all users)
> Keep HTML document generic and add personalised information (such as the users' shopping cart via AJAX)
> Cache parts of the page that are generic and don't cache other parts of the page that are personalised

SIGN UP NOW

section.io has developed design patterns that anyone can follow in order to implement HTML caching. Touch base at **sales@section.io** we are happy to share our detailed guides and experience to provide you a faster, more available website.

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