Using AWS CloudFront

What is CloudFront

Amazon CloudFront is AWS's content delivery network (CDN) service designed to improve website and application performance by distributing content to users with low latency.

Key Features and Benefits

- **Global Content Delivery**: CloudFront uses a worldwide network of edge locations to cache and deliver content closer to users, reducing latency.
- **Security**: Integrates with AWS Shield for DDoS protection, and AWS WAF (Web Application Firewall) to filter malicious traffic.
- **Integration with AWS Services**: Works seamlessly with other AWS services like S3, EC2, Elastic Load Balancing, and Lambda@Edge.
- **Customizable Caching**: Allows you to control how long content stays cached at edge locations.
- **HTTPS Support**: Provides TLS/SSL encryption and HTTPS support at no additional cost.

Goals for using CloudFront for our website

Get HTTPS connection between client and AWS
Speed up load times with caching for clients.

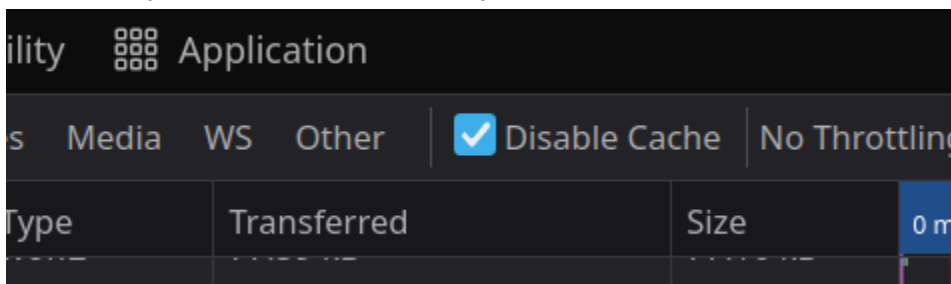# Check load times of our website

Connect to Asia

If you have a VPN connection, connect to any servers in Asia. If you don't, either find a partner near you that does or connect to the link provided (this website is hosted in asia)
_____ insert link here

Open the developer console on your browser.

Make sure you disable the cache on your browser and press reload.

Now sort by loading time.

See how long it takes to load the longest resources (How many seconds is 2000 ms?)

00	GET	myportfoliobucket-thai... c7.png		img	png	3.75 kB	3.39 kB	2679 ms
00	GET	myportfoliobucket-thai... c6.png		img	png	3.17 kB	2.82 kB	2651 ms
00	GET	myportfoliobucket-thai... c5.png		img	png	2.87 kB	2.51 kB	2588 ms
00	GET	myportfoliobucket-thai... c4.png		img	png	2.98 kB	2.62 kB	2573 ms
00	GET	myportfoliobucket-thai... c3.png		img	png	3.40 kB	3.04 kB	2392 ms
00	GET	myportfoliobucket-thai... c2.png		img	png	4.09 kB	3.73 kB	2291 ms
00	GET	myportfoliobucket-thai... c1.png		img	png	2.10 kB	1.75 kB	2251 ms
00	GET	myportfoliobucket-thai... p5.jpg		img	jpeg	5.54 kB	5.18 kB	2237 ms
00	GET	myportfoliobucket-thai... p4.jpg		img	jpeg	8.22 kB	7.87 kB	2164 ms
00	GET	myportfoliobucket-thai... p3.jpg		img	jpeg	19.64 kB	19.28 kB	2175 ms
00	GET	myportfoliobucket-thai... p2.jpg		img	jpeg	7.79 kB	7.44 kB	1876 ms
00	GET	myportfoliobucket-thai... p1.jpg		img	jpeg	6.11 kB	5.75 kB	1839 ms
00	GET	myportfoliobucket-thai... profile_image.jpg		img	jpeg	148.53 kB	148.17 kB	1978 ms
00	GET	myportfoliobucket-thai... responsive.css		stylesheet	css	3.20 kB	2.85 kB	830 ms
00	GET	myportfoliobucket-thai... style.css		stylesheet	css	20.48 kB	20.12 kB	913 ms

Set up Cloud Front distribution

Go to cloud front dashboard and create a distribution
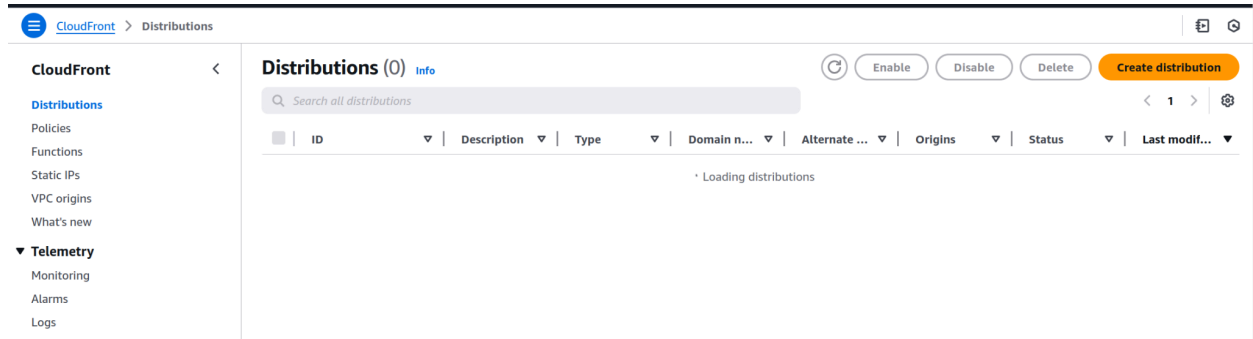
Use your bucket as origin

Find your bucket domain and set your website bucket as the origin.
Use the website endpoint when this message pops up

Disable WAF

Observe the other settings

Check out the other settings, but keep everything at default. Then create it.

Use the new distribution

Wait for it to finish deployment, then use the distribution domain name and paste it into your browser.

Notice that we have https now
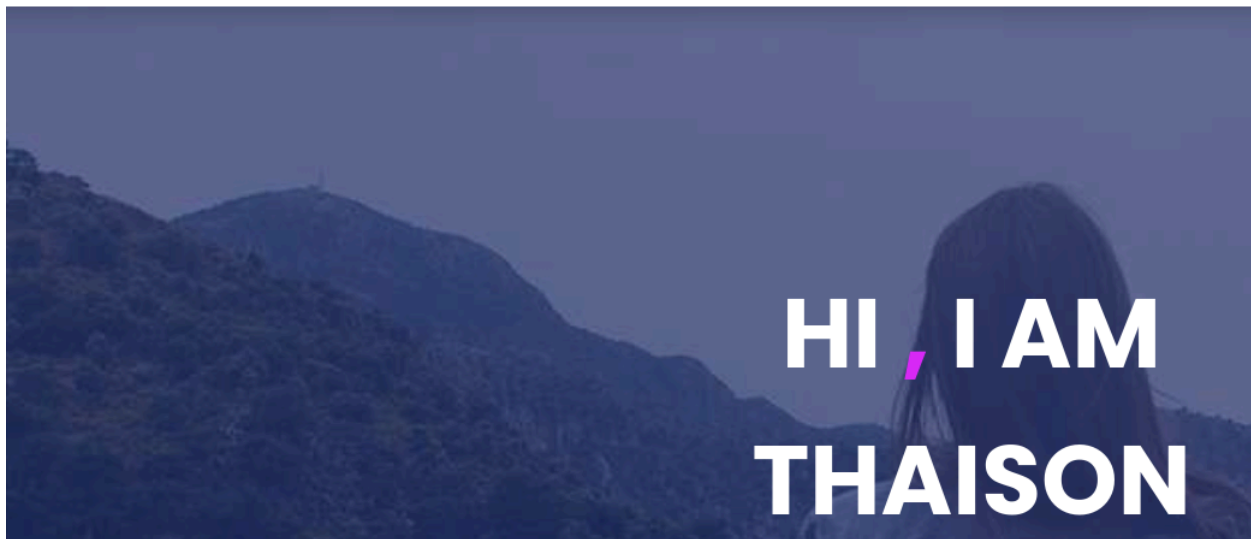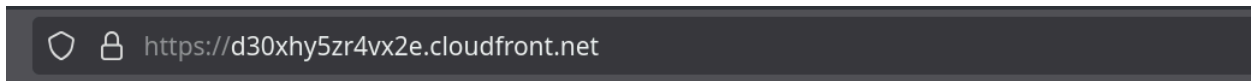
Check load times of CDN

Time your response again. The first load should take about the same time as last time, maybe less.

The second load should take much less time now that it has cached it at the CDN level

200	GET	🔒 d30xhy5zr4vx2e.cloudfr...	welcome-banner.jpg	img	jpeg	85.34 kB	84.91 kB	255 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	custom.js	script	js	1.41 kB	2.81 kB	458 ms
200	GET	🔒 cdnjs.cloudflare.com	jquery.easing.min.js	script	js	1.76 kB	2.53 kB	258 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	owl.carousel.min.js	script	js	11.26 kB	42.85 kB	459 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	jquery.appear.js	script	js	1.10 kB	1.48 kB	445 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	progressbar.js	script	js	7.32 kB	21.65 kB	445 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	jquery.sticky.js	script	js	2.88 kB	10.09 kB	445 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	bootsnav.js	script	js	4.26 kB	27.84 kB	439 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	bootstrap.min.js	script	js	10.03 kB	37.05 kB	439 ms
200	GET	🔒 cdnjs.cloudflare.com	modernizr.min.js	script	js	4.99 kB	11.08 kB	276 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	jquery.js	script	js	29.97 kB	85.58 kB	437 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	c7.png	img	png	3.82 kB	3.39 kB	440 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	c6.png	img	png	3.25 kB	2.82 kB	437 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	c5.png	img	png	2.94 kB	2.51 kB	454 ms
200	GET	🔒 d30xhy5zr4vx2e.cloudf...	c4.png	img	png	3.05 kB	2.62 kB	428 ms

Congratulations.