
AWS
re:Invent
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NET208

Enhance performance to boost SEO with CloudFront

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200 level session

Intermediate-level session to broaden your understanding of Amazon CloudFront in the context of SEO

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Agenda

What are Google Web Vitals and why do you care?

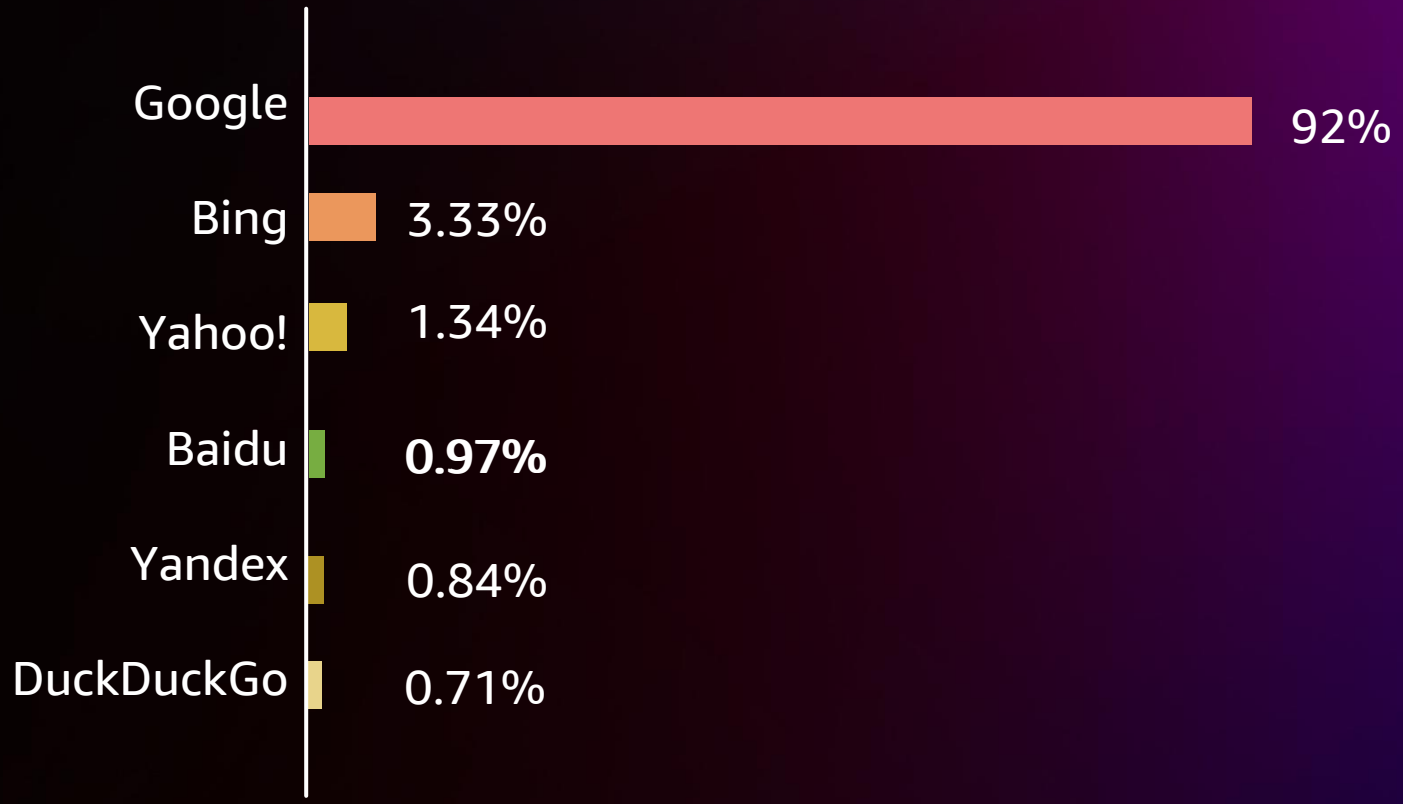
How does performance affect Search Engine Optimization (SEO) rankings?

What is Amazon CloudFront?

How can Amazon CloudFront be integral to your SEO Toolkit?

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More than 92%
of searches on the internet happen on Google search engine



Source: https://gs.statcounter.com/search-engine-market-share

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Timeline of performance-related SEO ranking changes

In 2021, Google ran over 700,000 experiments that resulted In more than **4,000 improvements to search**

Source:
https://blog.google/products/search/how-we-update-search-improve-results/

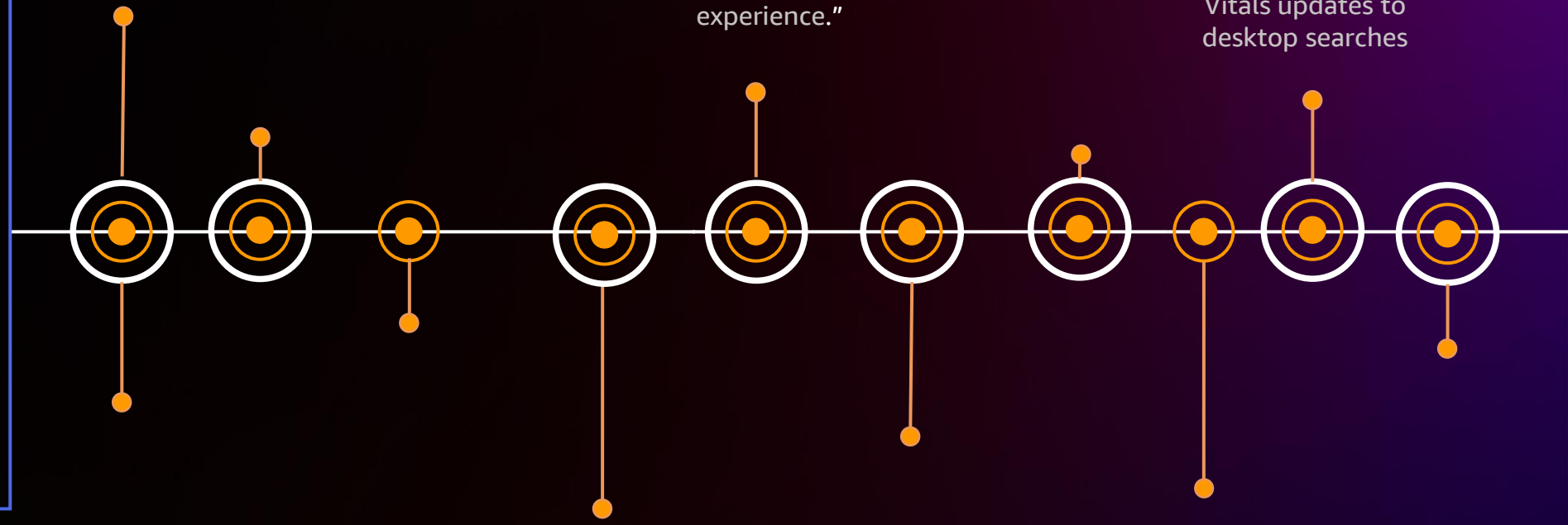
2010
In 2010, Google began factoring in page speed into it's web page ranking algorithm for the first time

2018
In 2018, Google included page speed into mobile web page rankings

2020
In 2020, Google announced web vitals - "Core Web Vitals are a set of real-world, user-centered metrics that quantify key aspects of the user experience."

2021
In 2021, Google rolls out Core Web Vitals updates for mobile searches

2022
In 2022, Google expands Core Web Vitals updates to desktop searches



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How does Google measure performance?

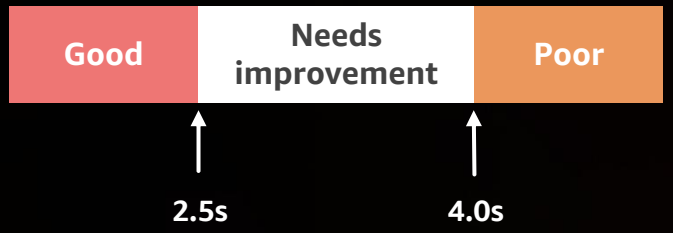
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Core Web Vitals



Largest Contentful Paint

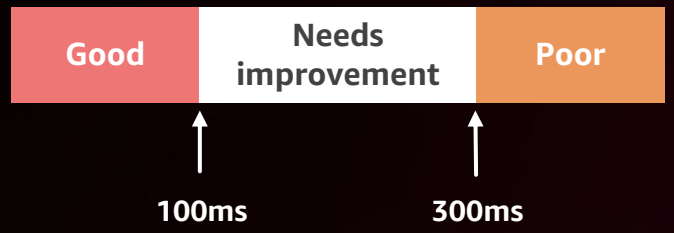
Loading
Target = 2.5 seconds





First Input Delay

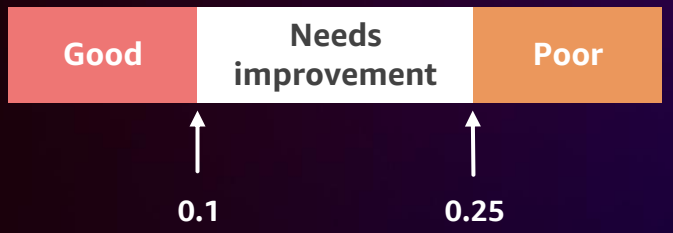
Interactivity
Target = 100 milliseconds





Cumulative Layout Shift

Visual stability
Target Ratio = 0.1



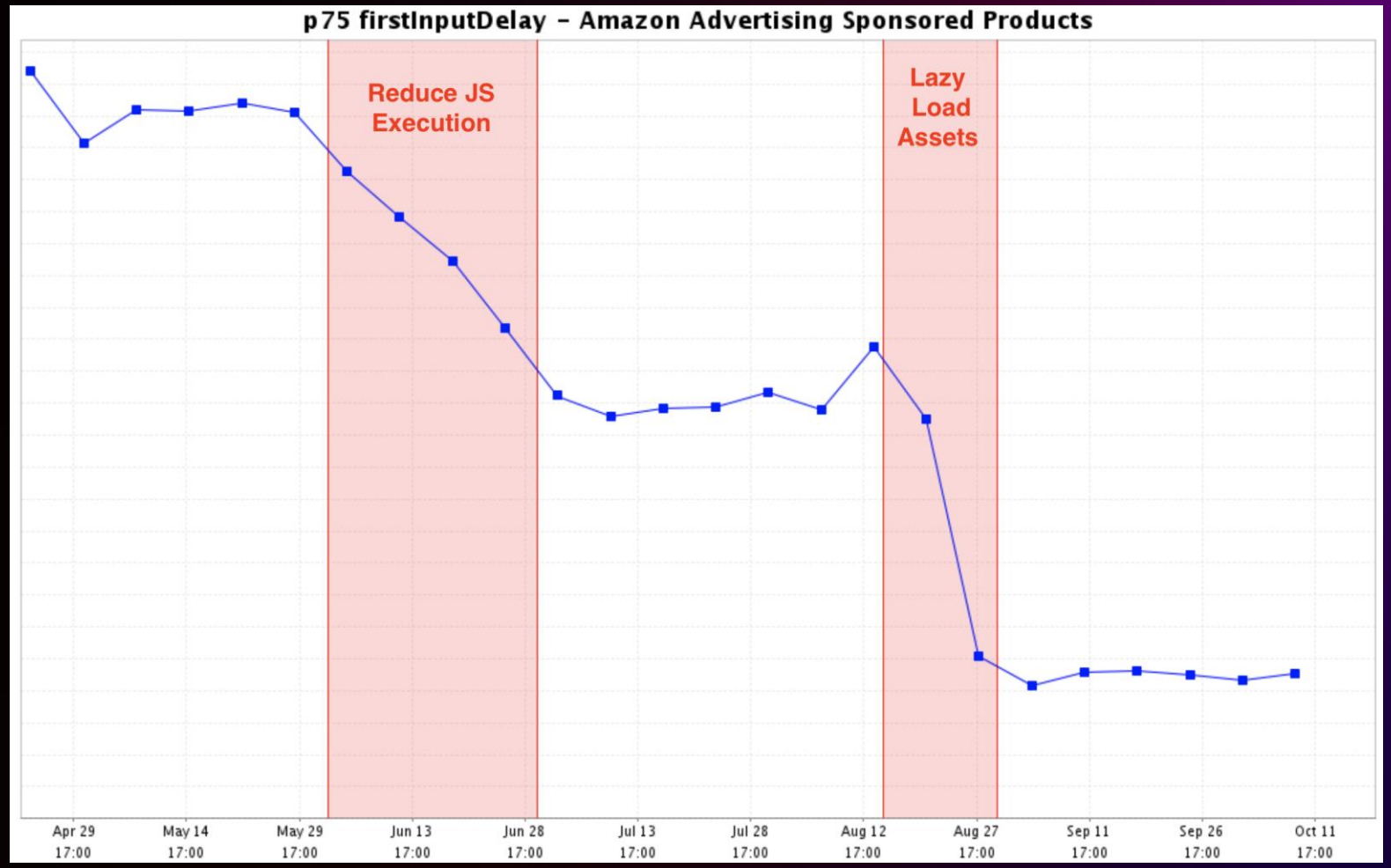
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Why do we measure performance on Amazon's Advertising Console?

"How fast our site feels is an important KPI of a user's journey on our site and creates trust in our brand."

Brian Saltzman

Director of Amazon Advertising Experience



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How does page performance affect SEO?

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Existing page experience ranking factors

On-page signals
Mobile-friendliness
Security
No interstitials

+

New Core Web Vitals ranking factors

Loading (LCP)
Interactivity (FID)
Visual stability (CLS)

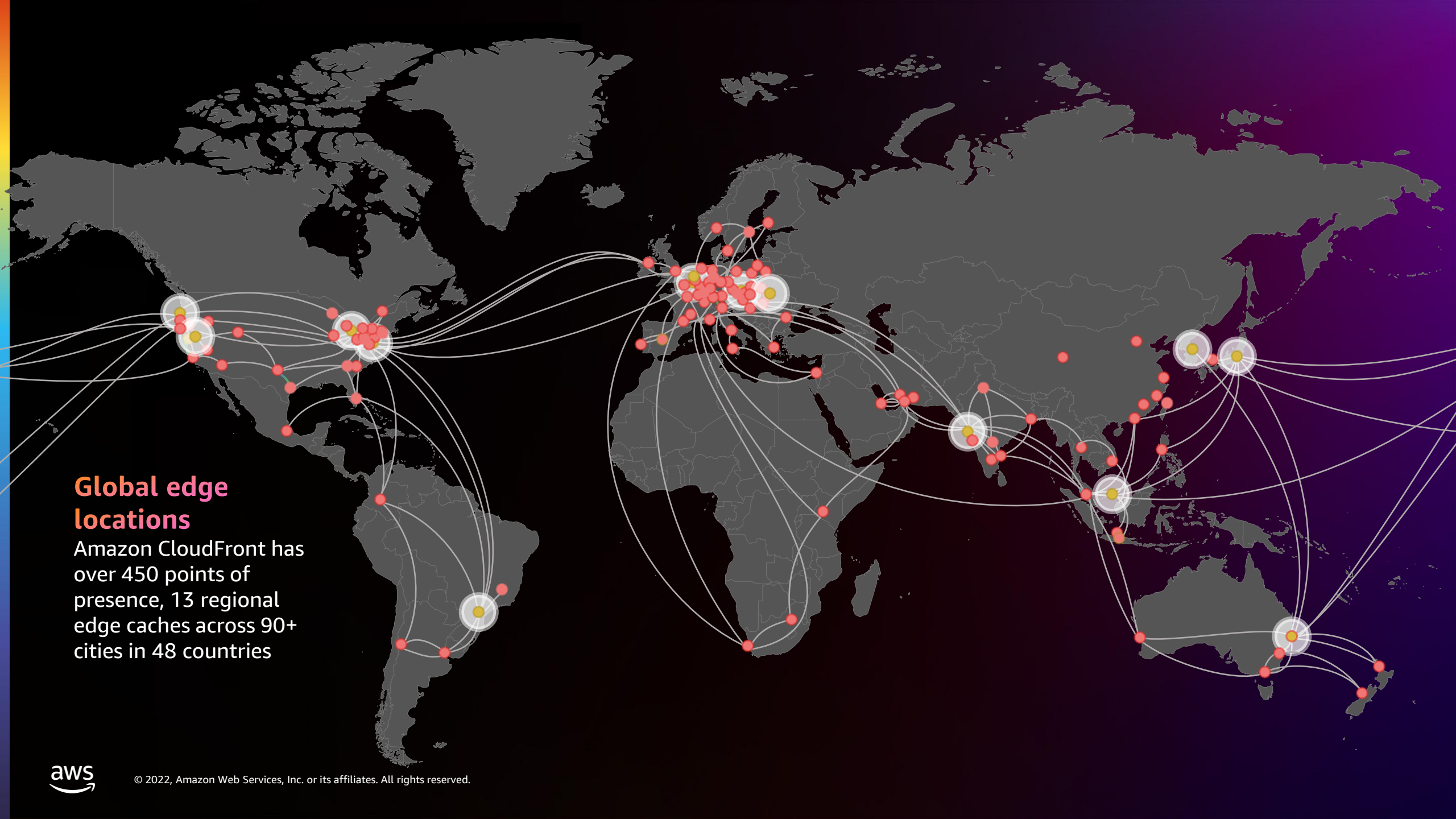
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Improved SEO ranking

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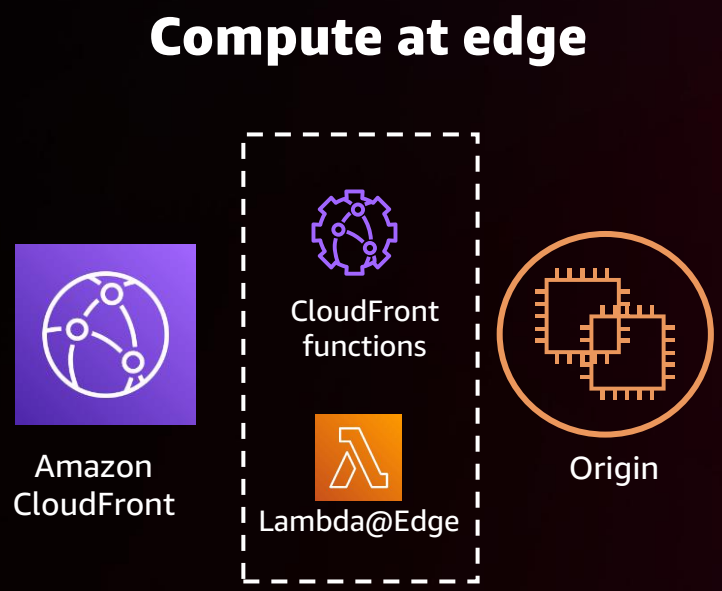
Amazon CloudFront

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What is compute at edge?



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There are 200+ factors that matter for SEO

CloudFront can be an integral part of your SEO toolkit



Critical SEO factors

- Quality content
- Domain authority
- Topic authority
- Keyword intent
- Content structure
- Page speed
- Inbound links
- Meta tags
- Security
- Social signals
- 200+ more



CloudFront can help your SEO teams

- Improves Core Web Vitals
- Provides SEO optimized configurations
- Offers Solutions that can boost SEO

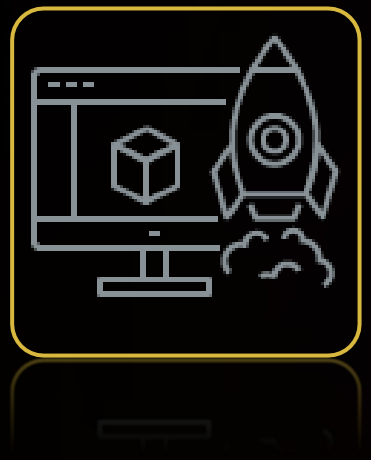
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How CloudFront can be used in your SEO Toolkit

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Improving your site speed



Out-of-the-box CloudFront features

AWS Backbone Network

TCP Optimizations

TLS Optimizations

Caching Optimizations

Features you can configure

TLS 1.3

HTTP/3

Brotli compression

Image optimizations – CloudFront functions, Lambda@Edge

Caching strategies

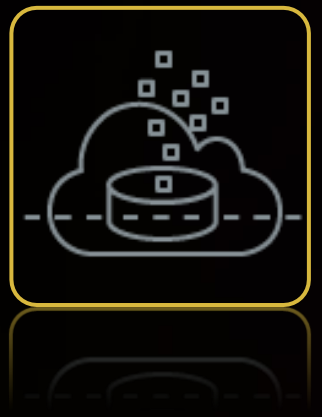
Origin Shield

CloudFront and Core Web Vitals

LCP FID CLS

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Caching

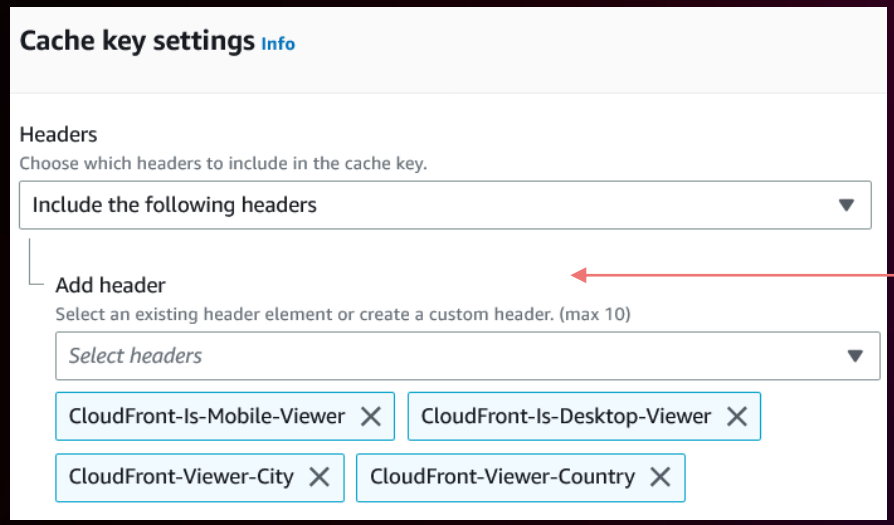


CloudFront features

Dynamic content indexing

You can set up your CloudFront distribution so that it caches the dynamic content

Caching based on request headers



Forking the cache based on viewer device and location

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Dynamic serving



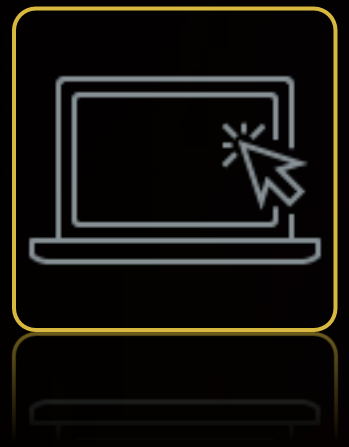
CloudFront solution – Lambda@Edge

Use CloudFront detection headers with lambda at edge

```
cloudfront-is-android-viewer
cloudfront-is-desktop-viewer
cloudfront-is-ios-viewer
cloudfront-is-mobile-viewer
cloudfront-is-smarttv-viewer
cloudfront-is-tablet-viewer
```

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Publish SEO friendly URLs



CloudFront solution - CloudFront Functions and Lambda@Edge

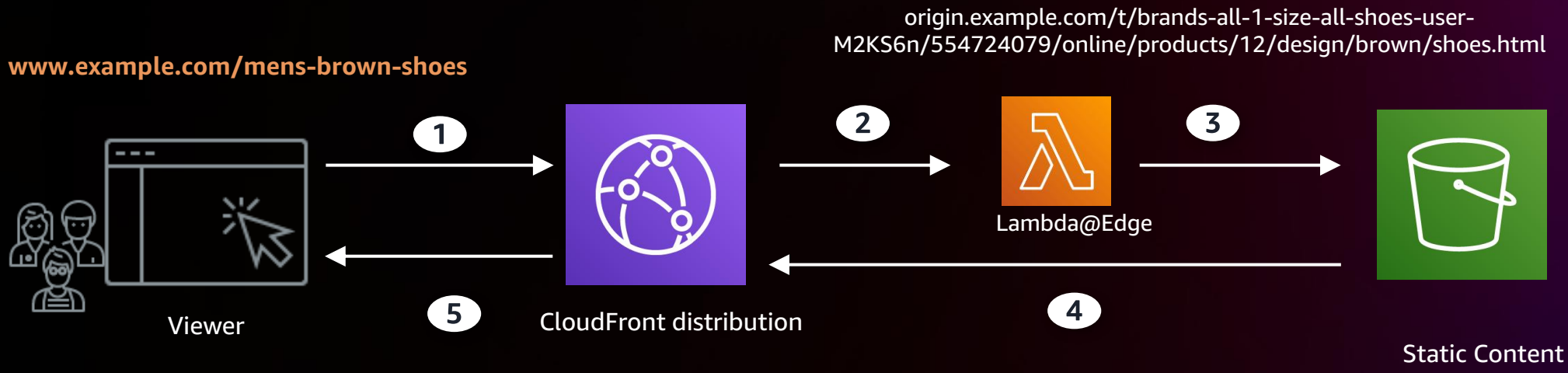
Keyword targeting

Pretty URLs

Error Handling

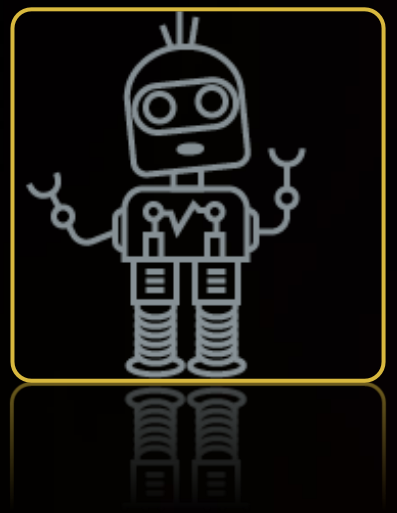
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Present indexable URLs for your static website assets



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Optimize content for search engines



CloudFront solution – AWS WAF with Lambda@Edge

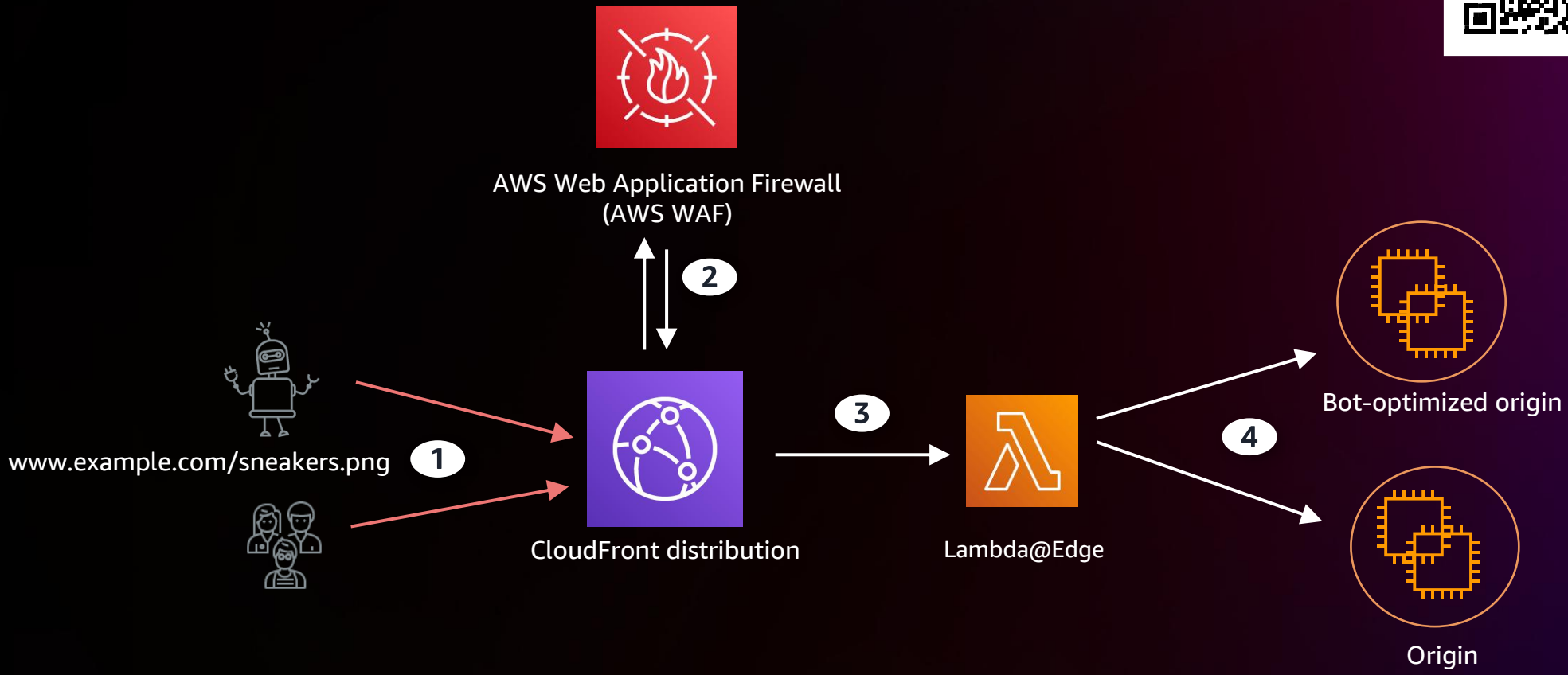
Crawlers prefer dynamic rendering

Serve traffic from SEO optimized origins

Detect bots with accuracy

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Serve SEO-optimized content for search engines



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Security



Insert security headers on CloudFront

Response Header Policies

HTTP Strict Transport Security headers

Reduce SEO impact during code updates



CloudFront new feature

Continuous deployment on CloudFront

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Key takeaways

Google Web Vitals

Performance and Search Engine Optimization (SEO)

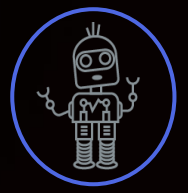
CloudFront is integral to your SEO Toolkit



Improve user experience



Employ SEO friendly URLs



Optimize content for SEO bots



Approach security as a top priority



Explore efficient caching strategies



Dynamic serving with CloudFront



Improve your Core Web Vitals



Leverage CloudFront compute integrations

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Thank you!

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