In-depth Investigation of CDN: Part 1

Learn push and pull models and dynamic content cache optimization in CDNs.

> ## We'll cover the following ⌃
>
> - Content caching strategies in CDN
>   - Push CDN
>   - Pull CDN
> - Dynamic content caching optimization
> - Multi-tier CDN architecture
> - Find the nearest proxy server to fetch the data
>   - Important factors that affect the proximity of the proxy server
>   - DNS redirection
>   - Anycast
>   - Client multiplexing
>   - HTTP redirection

In this lesson, we'll go into the details of certain concepts, such as CDN models and multi-tier/layered CDN architecture, that we mentioned in the previous lessons. We'll also introduce some new concepts, including dynamic content caching optimization and various techniques to discover the nearby proxy servers in CDNs.

Content caching strategies in CDN

Identifying content to cache is important in delivering up-to-date and popular web content. To ensure timely updates, two classifications of CDNs are used to get the content from the origin servers.

Push CDN

Content gets sent automatically to the CDN proxy servers from the origin server in the push CDN model. The content delivery to the CDN proxy servers is the content provider's responsibility. Push CDN is appropriate for static content delivery, where the origin server decides which content to deliver to users using the CDN. The content is pushed to proxy servers in various locations according to the content's popularity. If the content is rapidly changing, the push model might struggle to keep up and will do redundant content pushes.