CONTENT DELIVERY NETWORK FOR CHINA

Just as FedEx redesigned long-haul mail and post-delivery through their spoke-hub distribution network, content delivery networks (CDN) have changed the game in online content delivery. FedEx and CDNs operate on discrete models but both share a focus on leveraging strategic locations to ensure timely delivery.

A CDN is a network of nodes (or servers) distributed across different geographic locations to deliver content from your website to end-users in various geographic locations. To do this, a CDN first copies and caches the contents of your website to its network of nodes. When the network receives a request it allocates a node in geographic proximity to the user's access point and sends cached content to that user. This thereby reduces latency and significantly improves load time. CDNs are also built to handle huge volumes of traffic and provide protection from large traffic surges by distributing traffic across multiple nodes.

China is a unique market for the usage of content delivery networks. Due to existing regulations, individuals and organizations wishing to deploy a website on a local CDN must first apply for an ICP (Internet Content Provider) registration number. As a legal requirement, obtaining ICP registration is a mandatory requirement if you wish to access a content delivery network or host your website in Mainland China.

1.55 Mbps in China
vs 20 Mbps in U.S

Load Speed in China

Fast load speed is crucial anywhere in the world and especially in a mobile-centric market such as China, where the Internet connection is generally slower compared to other countries. In 2017, China ranked 134th for average download speed (1.55 megabytes per second), whereas the United States ranked 21 (20 megabytes per second) according to a Cable.co.uk study.[1]

The lack of peering points creates backlogs, thereby leading to slower Internet speed. On top of this, China's 710+ million Internet users are dispersed across vast geographic distances and certain rural areas still rely on 2G networks.

While such a high number of nodes would not be as necessary in other markets, Alibaba Cloud currently has over 1,000 CDN nodes in Mainland China to assist users overcome potential connectivity problems.
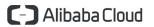
"For the immediate future, it is best to assume that websites that are hosted abroad will continue to be slower and harder to access for Chinese netizens." China-Briefing[2]

ICP Certification

Speed up your website by first applying for an ICP license

In order to access the infrastructure to speed-up your website hosted in China via a CDN, you will first need a Chinese ICP license. An ICP (Internet Content Provider) license is a registration number that allows a website to operate on a China CDN or hosting server. To apply for an ICP registration number, you must have a registered business in Mainland China. If you are a foreign applicant with an appropriate business registration in China, your ICP application will be managed by your China web hosting provider on your behalf. Alibaba Cloud, for example, would be responsible for receiving your application materials and applying to the Ministry of Industry and Information Technology (MIIT).

The Regional CDN Approach

Improve website performance with regional CDN/hosting

Foreign companies can minimize problems associated with low speed and without hosting in Mainland China by accessing infrastructure elsewhere in Asia. By leveraging deployment regions in proximity to China, such as a CDN in Hong Kong, Japan or Singapore, companies can improve their overall speed performance in China. Nonetheless, this strategy does not eliminate latency and is generally not as cost-effective as hosting on a CDN in China. CDN and hosting costs can, in fact, be higher in other Asian countries than in Western countries.

Surge Traffic & Video-on-Demand Content

CDNs effectively manage high volumes of traffic

As mentioned earlier, CDNs can help to manage high volumes of traffic. As the world's most populous country, it is not difficult to foresee websites in China experiencing huge surges in user traffic.

A major priority for content providers will be meeting the growing appetite for on-demand video content and online streaming. As per a recent Nielsen study, China is a global leader in the growth of video-on-demand (VOD) content, including downloaded or streamed content.

"China is at the forefront of this digital trend, with more than 4 out of 5 respondents (84%) saying that they watch some type of VOD programming. This is far greater than the number of global respondents (65%), across 61 countries that said the same." Nielson [3]

Alibaba Cloud
expanding globally
with 1,200+ nodes

Chinese Companies Going Abroad

Chinese companies are leveraging CDNs abroad to cater to the growing number of Chinese consumers accessing content overseas. Chinese-language travel booking platforms, video streaming sites, restaurant review sites, social media, and mapping services will need to rely on overseas content delivery networks to deliver content to their international user base.

This is one of the motivations behind Alibaba Cloud's own international expansion of cloud services. Alibaba Cloud currently offers over 1,200 CDN nodes around the world and is opening a string of new overseas data centers, including Malaysia (October 2017) and India (January 2018).

A content delivery network should be a vital consideration for any organization wishing to grow their business in China by improving the online experience for end-users.

Contact Alibaba Cloud to learn more about our CDN services for China.

References

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