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Content Delivery Networks (CDN): Buying Guide

By Jeff Vance
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Content Delivery Networks (CDNs) used to be pretty straightforward. Online businesses use CDNs to accelerate static web content to keep consumers from navigating away from their sites.

For years, CDNs were really about B2C interactions. They were, in essence, web acceleration tools, and the acceleration was accomplished by having many points of presence (POPs), which could be used to cache content and move it closer to end users. Today, as more and more aspects of our lives move online, organizations are relying on CDNs to accelerate static content, dynamic content, mobile content, e-commerce transactions, video, voice, games and on and on. CDNs are as important for B2B interactions as for serving up content to consumers. However, simply caching content and placing it close to users isn't enough anymore, and different CDN providers offer various tools and techniques to get your content to your most important users as quickly as possible. Here are five considerations that will help you make buying decisions as you navigate the confusing, complex and rapidly evolving CDN landscape:

1. Is your colocation, hosting or cloud provider giving you enough choice?

Today, CDN services tend to be consumed in a less-than-ideal manner. "Businesses sign up for a CDN service the same way consumers sign up for broadband Internet access or cable TV: they choose a single vendor with long-term commitments. This creates dependencies on that vendor's specific capabilities, coverage map and service level agreements," said Chris Sharp, GM for content and digital media for Equinix, a provider of global data center services. ' As a result, it's a common practice for businesses to overprovision, which limits their ability to cost effectively develop a high-performing, flexible content delivery strategy that can meet their business requirements. Sharp advocates a unique step in the CDN buying process: vetting colocation, hosting and cloud service providers first. Eventually, Sharp believes CDNs will follow the cloud and SaaS trends, and they will be delivered on an as-needed basis. However, for that model to work, businesses must look for colocation or cloud providers that give them access and inter-connections to multiple CDNs that offer different capabilities, thus allowing users to align their CDN choices with end-user needs and business goals. For instance, if you plan to roll out a ton of mobile content, you should have access to CDNs that optimize for mobile, which just got easier with Akamai's acquisition of mobile optimization company Cotendo). The same goes for video or e-commerce traffic.

2. How central is video to your future content plans?

Two types of content are really stressing traditional CDNs today: video and e-commerce. In e-commerce, studies have shown that as little as 200 milliseconds of lag time can reduce conversion rates by 2 percent. A 1000-millisecond delay lowers conversions by 3.5 percent. Video poses an equally daunting challenge. Obviously, you can't cache video for a live event and place it in a POP. Moreover, with video, format matters, since users on iPads will rely on different protocols than those on desktop PCs. Even when the video challenge is fairly simple, CDN choices are not. Josh Maurer is the Assistant Athletic Director, Broadcasting for the University of Massachusetts. Recruiting is a challenge for every athletic department, but UMass felt that it was losing ground to schools with strong TV presences. For instance, UMass had nothing like the Big Ten Network to showcase to recruits. For a few years, the athletic department had been broadcasting sporting events on the Internet, but Maurer wanted to get them on TV. A local channel, delivered to the majority of central and western Massachusetts cable subscribers, was being underutilized. The channel offered to air UMass basketball games for free – if UMass could deliver a high-quality stream in real time. First, UMass tried a homegrown solution that didn't work out very well. Next, they tried a small local provider, Pack Network, that did accelerate the streams, but not at a high enough quality. Then, Maurer looked at some high-priced solutions like those from Akamai and determined that they were out of their price range, as were adding satellite or fiber connections. Finally, Maurer attended the College Sports Video Summit and saw a demonstration for ZiXi, a company that specializes in video content delivery that has been working with a number of college athletic departments. "Using ZiXi not only enables us to get broadcast quality video streams on TV, but it also opens the door for new revenue models. More importantly, it levels the playing field for recruiting," Maurer said. "Now, our basketball coach can tell a recruit that every one of his games will be televised, which you need to be able to compete with schools that have affiliations with regional sports networks." The total ZiXi solution cost about $20K, with annual licensing in the $4-5K range. Maurer expects that the solution will eventually pay for itself many times over.