CRITICAL CONSIDERATIONS WHEN CHOOSING A CONTENT DELIVERY NETWORK

To provide the best possible customer experiences that will increase revenue and customer satisfaction, many organizations engage the services of a Content Delivery Network (CDN). However, to choose the right CDN for your workflow and business requirements, you must first evaluate your unique needs. The following provides guidance for identifying the key considerations and questions to ask.

1. DETAILING YOUR NEEDS

Mapping Your Application to Key Metrics / Properties

Every application brings unique challenges to online delivery. In choosing a CDN, the best decisions result from understanding the properties that are required in solving those challenges and the key metrics that describe those properties. While not exhaustive, here are some common content delivery applications and what to look for.

Geographic Considerations

Geography can play a major role in content delivery.

Where is your audience located?  
- Global
- Regional
- Local

It’s important to choose a CDN that has Points of Presence (PoPs) in the areas where your audience is located. Each PoP should have adequate egress capacity to ensure your audience receives the fastest possible experience. The CDN should also have peering agreements with the local Internet Service Providers (ISPs) and last-mile networks that serve your audience, in order to eliminate “last-mile” bottlenecks between the CDN and the user’s internet connection.

Where is your content stored?  
- Single on premise location
- Single location in the cloud
- Multiple locations in the cloud

When users request content that is not already cached, the CDN must retrieve content from origin storage servers, wherever they are located. To ensure the fastest content delivery on cache miss, choose a CDN that offers multi-region storage replication and is able to bypass internet congestion that can impede content retrieval.

Capabilities

CDNs offer a wide range of capabilities. Your business requirements should drive the capabilities you need.

What type of content will you be delivering?  
- Web content
- File distribution
- Live Video
- Video on Demand (VoD)

Choose a CDN that is designed to support your specific workflow.
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What are your content security requirements?
- TLS/SSL encryption
- Distributed Denial of Service (DDoS) protection
- Web Application Firewall (WAF) protection
- Video Digital Rights Management (DRM)

To protect content from being intercepted in transit, choose a CDN that fully supports TLS/SSL encryption across its entire network. A CDN with DDoS protection integrated into the same network that is used to deliver traffic will provide the fastest performance when under attack. If you are delivering video content, look for a CDN with integrated DRM and content protection.

What are your video content delivery needs?
- Online Video Platform to manage video content
- Live video streaming
- VoD transcoding and packaging

If you require the video content management capabilities of an Online Video Platform (OVP), consider choosing a CDN with integrated OVP capabilities to eliminate the complexity of using separate systems to manage and deliver your video content. To reach the maximum number of viewers and simplify the creation of content in multiple streaming formats, look for a CDN with integrated transcoding and transmuxing that can take a single input file and create multiple different output formats and bitrates on demand.

2. YOUR CDN IMPLEMENTATION GOALS

Whether you are integrating a CDN for the first time, transitioning to a new CDN, or implementing a multi-CDN strategy, a successful implementation requires planning.

First-time CDN Customer
Delivering content via a CDN has many dimensions, and the learning curve can be steep. Finding a CDN partner who can help you craft the right solution and phased deployment strategy is critical to your success.

Steps for success:
- Define an achievable first phase. Start simple and focus on the fundamentals with a short list of content and geography requirements.
- Identify a set of longer-term phases to help guide decision making.
- Evaluate CDN candidates based on expertise, service and support offerings, and technical capabilities. The right CDN will be a partner that can help you execute your vision and transition smoothly from your current methods.
- Weigh the relative merits of working with a CDN partner that offers a turnkey solution with expert assistance vs. utilizing internal resources to design, build, and maintain a custom solution.

Multi-CDN or Transition to a New CDN
Using multiple CDNs and balancing the load among them can provide a range of business benefits. When transitioning from one CDN to another, ensuring uninterrupted service requires an orderly ramp-up of the new CDN and ramp-down of the old one.

Steps to consider:
- Define your goals. Are you looking to improve performance, add redundancy, or foster competition? Choose a CDN provider who will help you achieve your primary goal.
- For multi-CDN deployments, you need to consider your load balancing strategy. When assigning traffic to multiple CDNs you need to decide if you want to implement fixed weightings between CDNs, performance-based balancing, or balance based on factors like region.
- When implementing a new CDN, you need to consider the impact on your existing services like origin storage, DNS, and other key components. Determine which existing components will remain in place and how you will successfully migrate to the new components without impacting existing operations.
3. SUPPORT
Finding a CDN partner who is able to provide the ongoing support and services you need after you start delivering content can be critical in ensuring maximum uptime and efficient traffic operations, and helping you respond to changing business needs.

Incident support
Avoiding downtime will sometimes require support from your CDN provider.

What to look for:
- Does the CDN vendor offer 24/7 support?
- Is live support available, or are only email and chat support offered?
- How much does the vendor charge for support?
- Is support available in multiple regions and in different languages?
- Does the CDN have a 24/7 Network Operations Center that can ensure efficient traffic delivery?
- Does the CDN offer an appropriate customer notification system for planned maintenance and service incidents?

Configuration and Self-Provisioning
To ensure efficient day-to-day operations, you will need to routinely update your CDN configuration to meet your changing requirements.

What to look for:
- Does the CDN offer a robust set of APIs for self-provisioning and configuration?
- Does the CDN offer a web-based GUI that can be used for configuration and management?
- What capabilities are exposed for self-provisioning?
- Ask for a demo of CDN providers’ self-provisioning solutions.

Professional Services and Consulting
When implementing new capabilities that allow your business to respond to changing requirements, experienced assistance can be invaluable. Some CDN providers have experts available that can act as an extension of your team.

What to look for:
- Does your CDN vendor have an expert Professional Services team available to help you optimize your initial deployment?
- Does your CDN vendor offer specialized support offerings for major events?
- Can your CDN vendor offer workflow consulting and the implementation of best practices?
- Ask for examples where the CDN has solved similar problems for other customers.

NEXT STEPS
Choosing the right CDN begins with determining the capabilities that are most important for your specific workflow and which vendors are best suited to meeting your needs. An implementation plan needs to be developed that will ensure an efficient and timely deployment with minimal impact on your operations. Support and implementation services are critical to your ongoing success and should also be an important element of the decision-making process. By considering all of these elements during the vendor-selection process, you will be able to find the right partner for your long-term success.

FREE TRIAL
If you are considering CDN services, Limelight invites you to Request a Free Trial so we can show you why at Limelight, every person is committed to delivering the best experience first, for you and your customers, 24/7/365.

Learn more at www.limelight.com/free-trial

MORE INFORMATION ABOUT CHOOSING A CDN
Whether you are delivering videos, web content, music, software or games, providing consistent, high-quality online experiences is critical to your success. A CDN can help you achieve that goal. Be confident you are choosing the right solution for your business, view our on-demand webcast.