



CDN Optimization

Content Delivery Networks (CDNs) play a crucial role in optimizing the delivery of content to end users, especially for video and live traffic. **NetOpt.Design** offers **CDN Optimization** services to help large service providers maximize their

CDN performance and reduce costs.

1. Location and Size Optimization of CDN Appliances

- We evaluate the placement of **CDN appliances** across your network to ensure that they are strategically located in the best-performing regions. This reduces latency and ensures a **highly efficient delivery** of content.
- We also assess the **optimal sizing** of each appliance to handle varying loads, ensuring the network is not overburdened while maintaining high performance.

2. CDN Hierarchy Optimization

- Our team will optimize your **CDN hierarchy** to ensure the most efficient content distribution model. We review the **topology of your CDN network** and suggest improvements to optimize data delivery.
- We provide **optimal location suggestions** for third-party appliances like **Facebook**, **Netflix**, and **Google**, ensuring your network can accommodate **high-traffic sites** efficiently.

3. DNS System Scaling and Robustness

- To support an efficient CDN, we optimize your **DNS system**, ensuring that it can scale properly with traffic demand. We assess its **robustness** to prevent DNS-based attacks and ensure reliable content resolution for end users.

4. Popularity Profiles and Mathematical Models

- We use advanced logging tools like **Splunk** to gather **popularity profiles** of assets (e.g., videos, images). These profiles help us understand which content is accessed most frequently.
- Using these profiles, we fit **optimal mathematical models** to predict **hit rates** and design your **CDN hierarchy** accordingly, ensuring content is delivered effectively and reducing unnecessary traffic.

5. Optimization of Video QoE (Quality of Experience)



- We focus on **video QoE** optimization to improve the user experience for both **live traffic** and **Video on Demand (VOD)** traffic.
- We suggest the **optimal use of TCP flavors** (like **TCP Reno**, **TCP BBR**, etc.) to ensure the best possible **video delivery experience**.