Content Delivery Network

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What is a CDN ?

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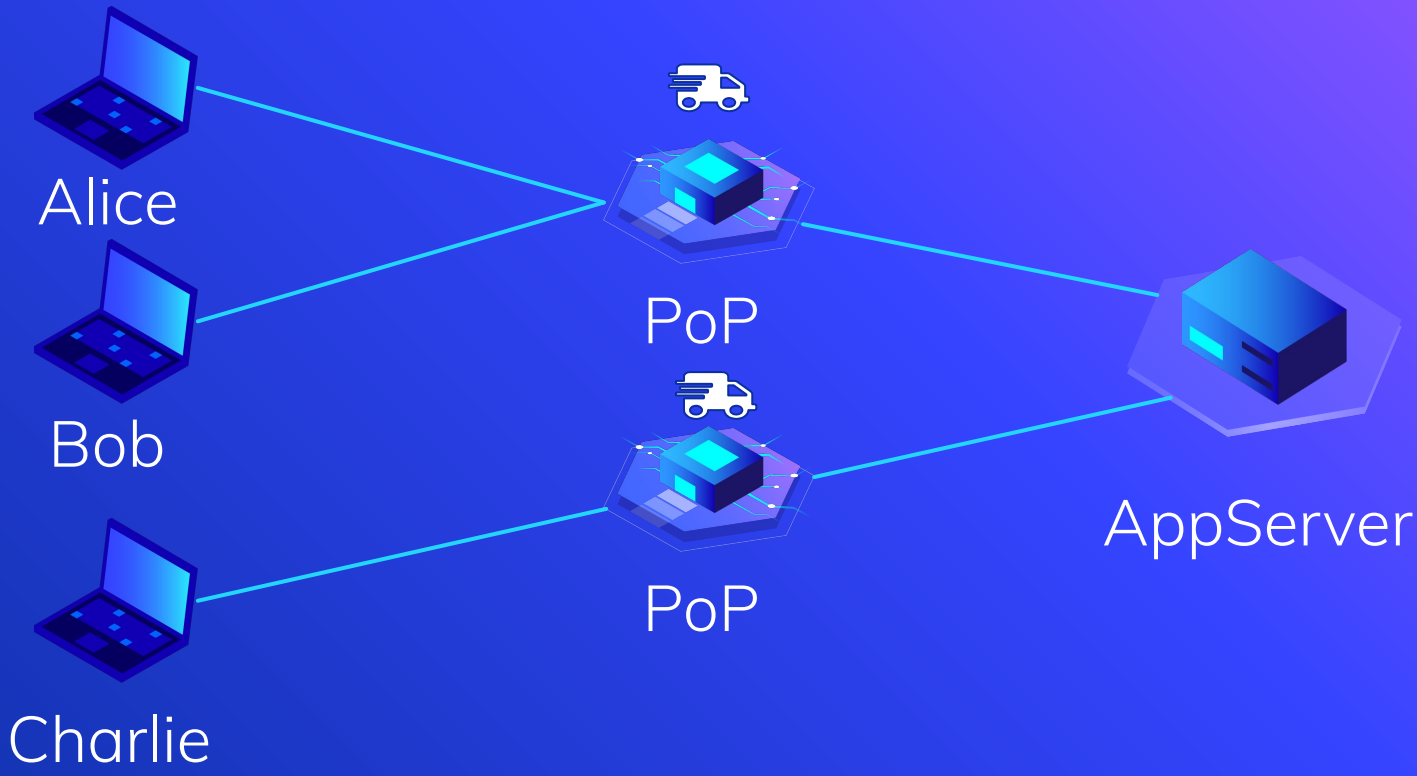



98ms
25ms
135ms
40ms
115ms
AppServer
Pop


AppServer
Pop

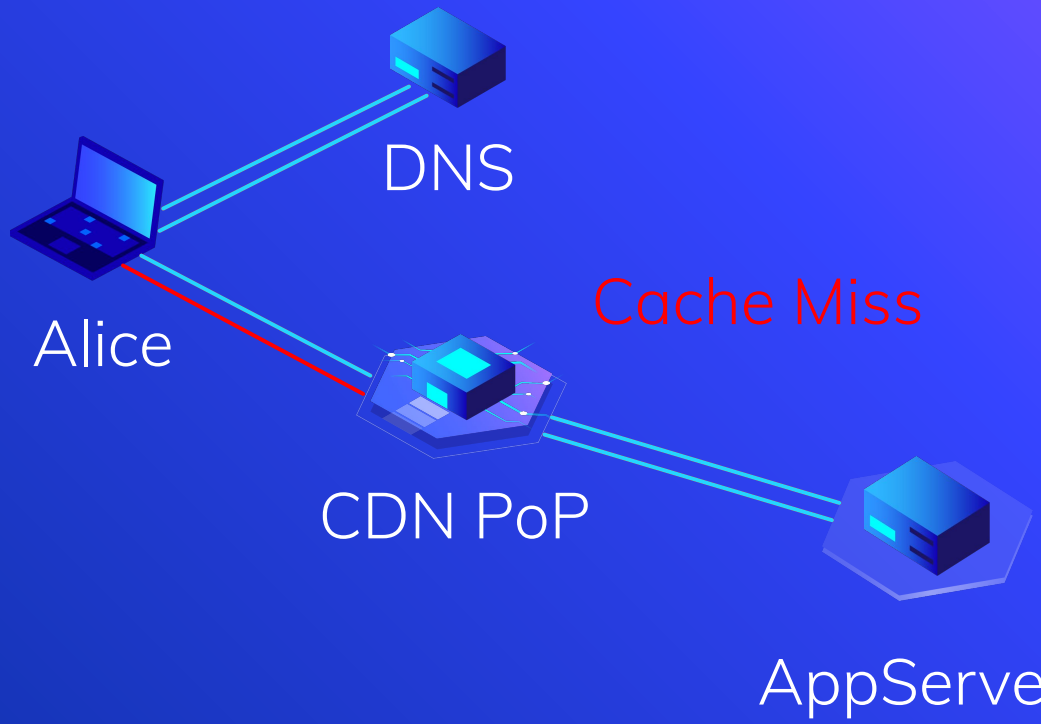
> A content delivery network, or content distribution network (CDN), is a geographically distributed network of proxy servers and their data centers. The goal is to provide high availability and performance by distributing the service spatially relative to end users

Wikipedia

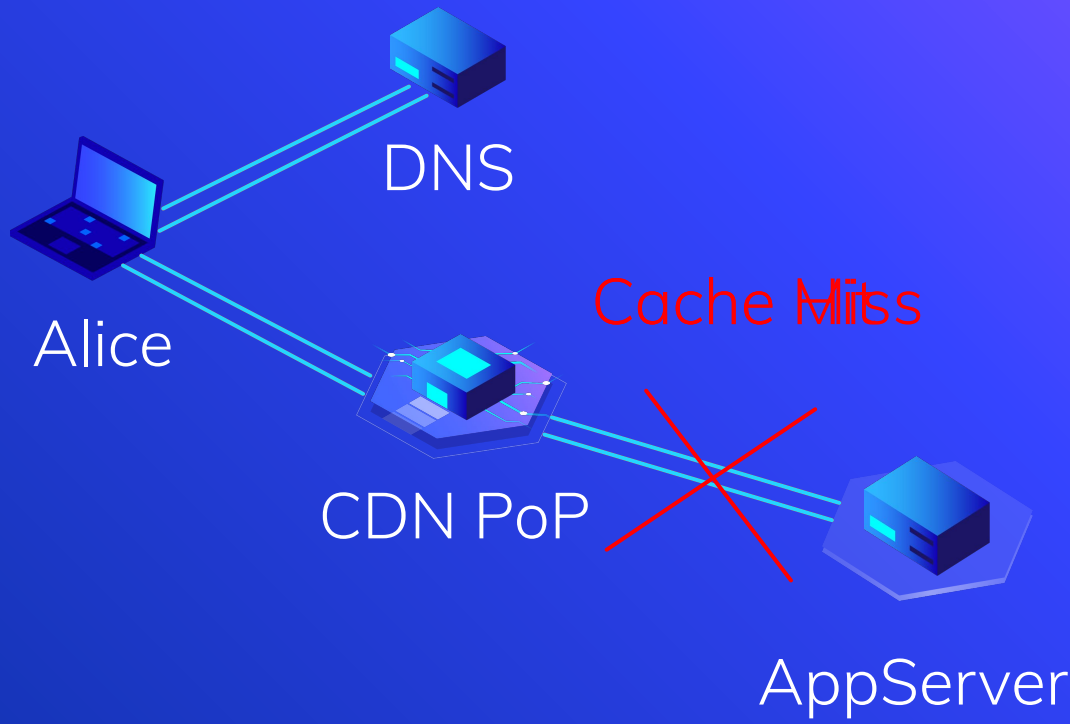
Why use a CDN ?

- Faster delivery on content
- Lower the load
- Higher Uptime
- Adds Security

How does a CDN work ?



How does a CDN work ?

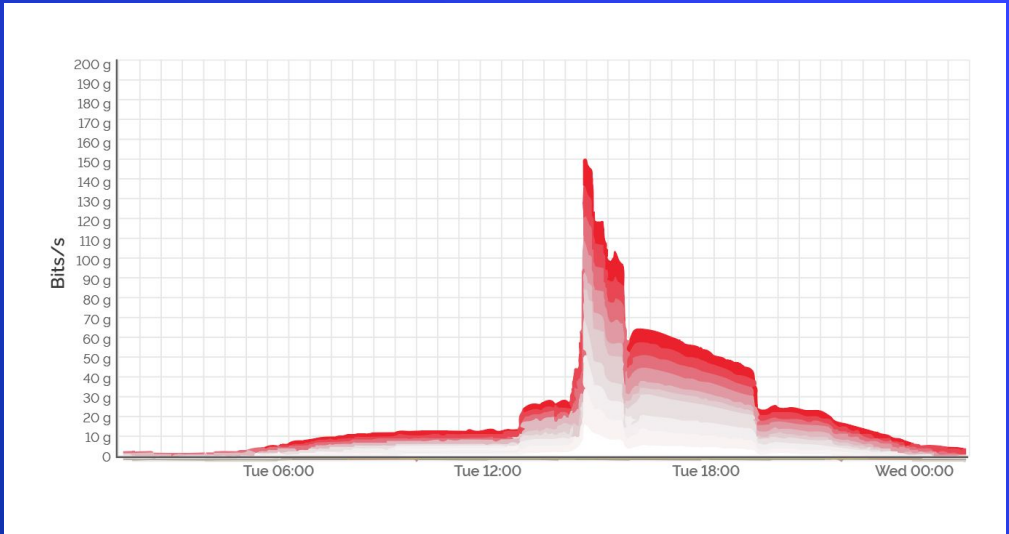


Types of CDN

- Pull CDN
- Push CDN
- Peer to Peer CDN

DDos Resistance

- Distributed capacity
- Traffic to origin server is reduced
- Cache allows to serve very high request rate



Availability

- Handles spikes of request (similar to DDos)
- Server down but cached in CDN, still available

Files Compression

- On the fly compression
- Adaptive Image Compression

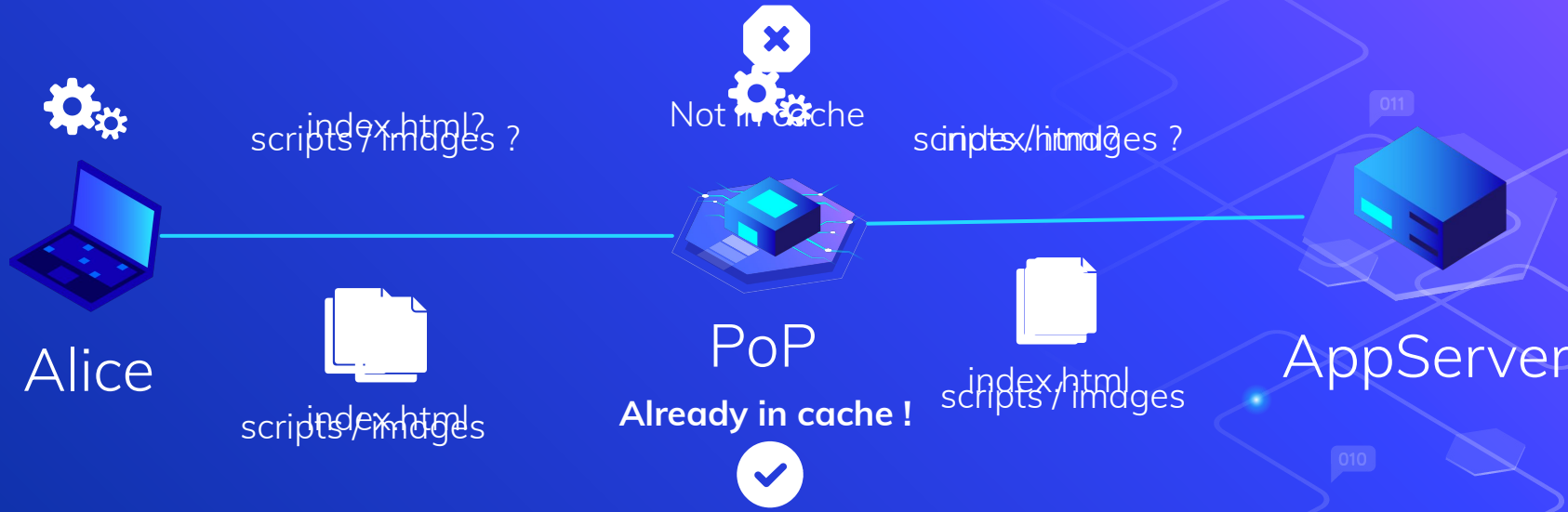
Dynamic Site Acceleration (DSA)

TCP Protocol Optimization

- Eliminating TCP slow start
- Leveraging persistent connections

Dynamic Site Acceleration (DSA)

Object Prefetching



CDN Providers

Free - Commercial - P2P - InHouse

jsDelivr

cdnjs

Google Cloud CDN

Azure CDN

NETFLIX

For Even More Security

Azure Front Door

Demonstration

Azure & CloudFlare

Why not use a CDN ?

- Costs
- Loss of Control
- Location of Service
- Add complexity

Thanks for listening

Any questions?