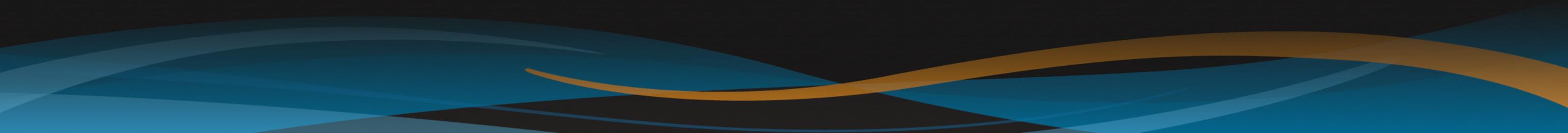# Eyeball Networks & CDN Caches

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Agenda

1. Disclaimer

2. Rules

3. Decisions, Decisions

4. Questions

Disclaimer

I work for a CDN, this may color my perspective

This talk is designed to be agnostic, if you see something you feel is biased, please point it out

Rules

1. There are exceptions to every rule
   When I say "X == Y", please hear "except for these few corner cases" even if I do not say it

2. This is very high level
   I was given 10 minutes, I need to gloss over some details

3. Questions are welcome & encouraged
   This is for you, be sure you get the most out of it

Eyeball Networks cannot support every CDN

The base assertion is pretty simple, and I think inarguable:

- It is not possible for every eyeball network to put caches from every CDN into their network

Which leads to a pretty simple question:

- As an eyeball network, how do you decide which, if any, CDN caches to install?

My answer is nearly as simple:

- Whichever ones make sense to put in
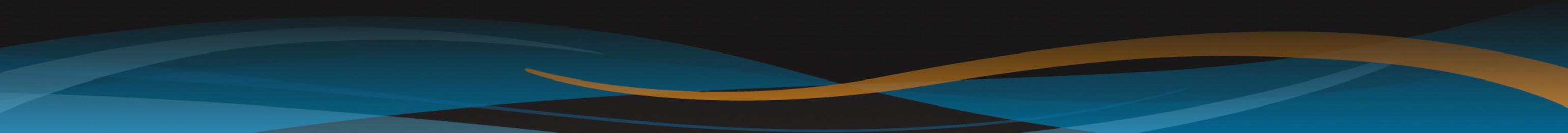
Installing CDN caches is a *business* decision

ISPs are businesses, decisions should have a business reason

Compare this to peering requests
- If someone with 5 Mbps of traffic asks for a 10G PNI, what do you tell them?
- If someone with 50G of traffic asks for PNIs, what do you tell them?

Obviously traffic is not even close to the only factor, but it illustrates the point

CDNs are more complex than peering

Supporting an on-net caching node is far more complex than peering

If the CDN does things to make your life simpler, that should go into the decision matrix

If the CDN goes out of its way to cause you money (or pain), that should also be a consideration

Supporting CDNs can be complex

The list of things to consider is far too long for a 10 minute presentation

- CapEx
- OpEx
- Marketing
- User satisfaction
- Competitive analysis
- Space planning
- Power planning
- Affect on peering
- Failure mode planning

- Time
- Money
- Effort
- Hassle
- Headaches
- User complaints
- Rumors your boss heard
- Drinks at the NANOG bar
- Color of blinky lights

Examples of complexity

A couple examples of making your life harder, or easier

- Will the CDN conform to your power standards (e.g. DC vs. AC)?

- Does the CDN allow you to limit which users are served from the on-net nodes and which nodes serve which users?

- Does the CDN use standards-based communications (e.g. BGP)?

- Is the CDN willing to distribute traffic to lower your backbone / backhaul costs, or require you to centralize nodes?

Does it help YOU?

End of day, you have to do what benefits your company

Consider each CDN independently, and as a group

Decide which CDN, or group of CDNs – if any! – will add to your bottom line

- Of course, that doesn't mean it will be easy…

The Good News

The only good news I have for you is:

CDNs and Eyeball Networks have the same goal:
- To deliver traffic to the end user as reliably, quickly, and cost-effectively as possible

Remember that when deciding and negotiating

Questions

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