

# **Closure**

## **Working with CDNs : towards BCOP.**

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# Goal of the project

- Attempt to propose BCOP to ISPs for content delivery :
  - Optimal load balancing & overflow
  - Optimal geo targeting / mapping to end user
  - Optimal capacity planning
  
- Regardless of interconnect type  
(embedded caches / peering / transit)

# Proposed structure for BCOP

## I. BGP prefix announcements and Traffic Engineering

*(announce them all, use prefix specificity, communities, AS path length, MED, implement regional DNS. )*

## II. Capacity and diversity planning

*(scalability, diversity, failover plans, position of network assets ...)*

## III. IPv6

*(All sessions dual stacked)*

## IV. Documentation

*(Peering DB)*

For more details see last slides

Thanks for your  
attention and enjoy  
a great RIPE 71 !!!

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More  
details

# BGP prefix announcements and Traffic Engineering

- Ideally use different prefixes for each network region / product.
- BGP prefix announcements : announce them all (customer, internal, BB + DNS Resolvers) to your interconnects with CDNs (= to all hosted caches and to all peering sessions).
- Prefixes advertised to caches and peering are at least as specific as ones advertised via transit.
- Do not announce anything more specific than a /24 (v4), /48 (v6).
- Always prepend your ASN in BGP as-path announcements.
- Traffic engineering : use MED; communities, AS-Path to express your preferred locations. Don't withdraw prefixes.
- Implement regional DNS.

More  
details

# Capacity and diversity planning

- Provide as much as possible scalable capacity for caches and peering.
  - Right-sized or optimally sized uplink capacity for embedded caches
  - Not running PNIs at more than 70-75% of capacity
- Discuss and plan failover between hosted caches, peering or transit with internal CDN and external partners.
- Discuss and plan your diversity strategy with your CDNs .
  - Path diversity
  - PNIs in more than one location / PoP
  - Position of network assets