

**"Anycasting i.root-servers.net"
or
"where are they now?"**

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New sites for `i.root-servers.net`

- Since the last RIPE meeting we've added six sites
 - Americas: Chicago and Washington
 - EMEA: Bucharest and Ankara
 - Asia Pacific: Kuala Lumpur and Tokyo
- With the addition of the American sites we now have presence in all major regions
- Full list right now is:
 - Americas: Chicago and Washington
 - EMEA: Stockholm, Oslo, Helsinki, London, Brussels, Amsterdam, Frankfurt, Geneva, Milan, Bucharest, Ankara
 - AP: Tokyo, Kuala Lumpur, Hong Kong, Bangkok

New sites, cont'd

- There are on-going talks with several additional sites that we hope to close within a few months
- With the present 17 sites drawing live traffic we believe that we're mostly on track with the plan for around 25 sites by the end of this year
- Furthermore, due to changes to the funding model for our anycast deployment we will probably pick up some additional sites that otherwise would not happen
 - see next slide

New model for deciding sites

- Until now the model for i.root-servers.net deployment has been extremely simple
 - we paid for the hardware and installation and only required help with rack space and connectivity
- However, that model had some drawbacks
 - it forced us to prioritise “high traffic” locations because with funding for a limited number of sites we simply could not “go everywhere”
 - we had to turn down several sites that would have been willing to help offset our deployment costs
- We’re adapting to that and we therefore now accept help with funding as way to make sites happen that could previously not be justified
 - we are seeing interest in this from several places

Peering models for anycasted sites

- When deploying a new site there are choices to be made wrt to peering alternatives
 - F.i. F-root (ISC) uses the terminology “global vs local” nodes to distinguish between sites that only announce the service prefix locally (via the “NO_EXPORT” community tag) and globally (full global transit)
 - K-root (RIPE NCC) seems to work in a similar way
- I-root (i.e. Autonomica), however, doesn’t distinguish on a per-site basis this way
 - instead we do a per-peer selection of route propagation
 - i.e. at every site we look over the peers and use some of them for global transit and the rest only for peering
 - accepting transit from everyone would not make sense (more work and higher risk without further propagation) and purely local nodes would lessen our bandwidth utilisation

Thanks !

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