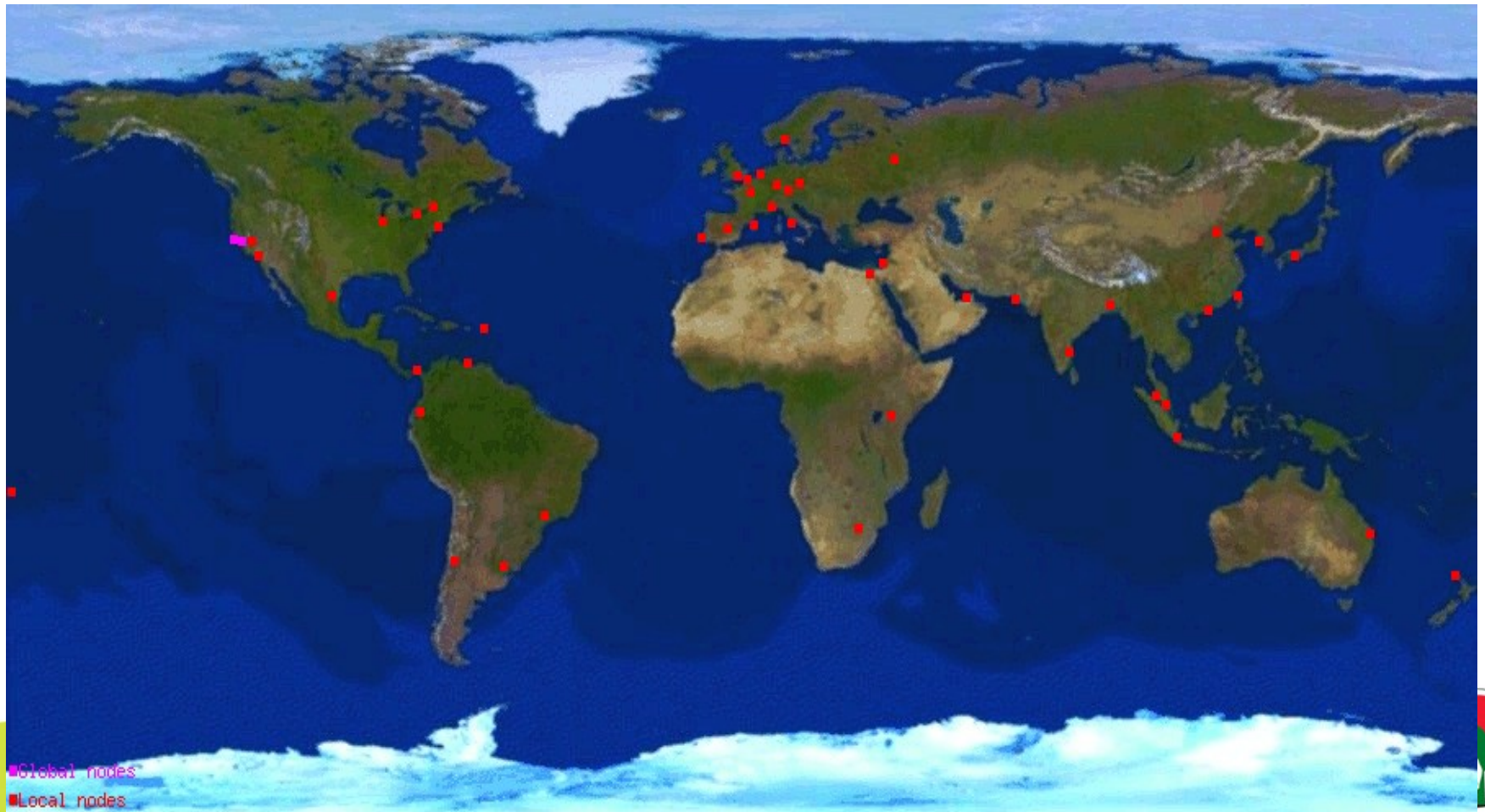# Anycast policy proposal

AFPUB-2012-V4-001-DRAFT-01

Anycast...many servers all answering using 1 IP: F-root: 192.5.5.241 and 2001:500:2f::f

Anycast…many servers all answering using 1 IP address

- In practice, this means that the whole /24 is "used"

- "Used" in the sense of announced or routed, so while only one IP used, 250+ are notHowever, there could be dozens or hundreds of servers that answer on that IP

- Policy implications:

1. You can't justify a 1st allocation if you only can use 4 of 1024 Ips (as an example).

2. You can't get an additional block because you don't "use" in the traditional sense of "using" 80% of the block

- Policy gap is easily fixed

Current policy says:

End-User Assignment to critical Infrastructure:

- "AfriNIC will make End-User assignment to critical infrastructure providers of the Internet such as public exchange points and core DNS service providers. These allocations will be no longer than a /24 using IPv4. Multiple allocations may be granted in certain situations. "

- "A core DNS service provider is a company who provides DNS service for the root level of the DNS tree (ICANN-sanctioned root operators)."

F-root needs are already met by policy... others want non-DNS Anycast

- Anycast is usually used for DNS servers
- HTTP/other traffic can be served via Anycast
- Video is a good candidate
- Many Content Distribution Networks use it
- Google? Facebook? Yahoo? AOL?
- Three6Five has a biz model that our policy denies

New proposal says:

- An organization may obtain one (1) /24 IPv4 prefix for anycast or GRX purposes from an allocation or end-user assignment. These prefixes must be used for the sole purpose of anycasting web or authoritative DNS servers as described in BCP126/RFC 4786 (http://www.ietf.org/rfc/rfc4786.txt or for GPRS Roaming Exchange.

- These prefixes will count as being fully utilised when an organization applies for additional resources. The utilization criteria that apply to all IPv4 initial allocation or assignment requests shall be waived for anycast allocation or assignment requests.

- Blocks used for anycast services cannot be further assigned or sub-allocated. They shall be tagged with the status attribute in the AfriNIC DB as "ASSIGNED ANYCAST".

Summary

- Gap in policy that prevents a real biz model from being deployed

- We can fix it easily and quickly

- May seem a "waste" of space, but usage will probably be trivial/insignificant

- "Cost" should be small "benefit" will also be small, but essential.

- It's a corner case, but one that needs addressing (pun intended)

Questions/Comments