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Use Cases and API Extension for Source IP Address Selection

draft-sijeon-dmm-use-cases-api-source-02.txt

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Status

- Appealed and discussed in the mailing list
- Presented at DMM WG in 92nd IETF meeting (Texas, US)

- (-01) updated at Jun. 2015
  - Proposed API name changed with texts elaboration

- (-02) updated at Oct. 2015

Overview

- Use cases analyzed, based on the three IP address types defined in draft-ietf-dmm-ondemand-mobility

- Tackling an issue found in the analysis, a socket API was proposed to indicate IP prefix preference of an APP to the IP layer

In more details …

- A terminal is likely to have multiple Sustained IP addresses on the deployment of distributed mobility anchors

- The on-demand draft assumes a fixed way of selecting the Sustained IP address for an initiated application
  - Selecting new Sustained IP address as possible

- It should be figured out in the context of the default source IP address selection in RFC 3484

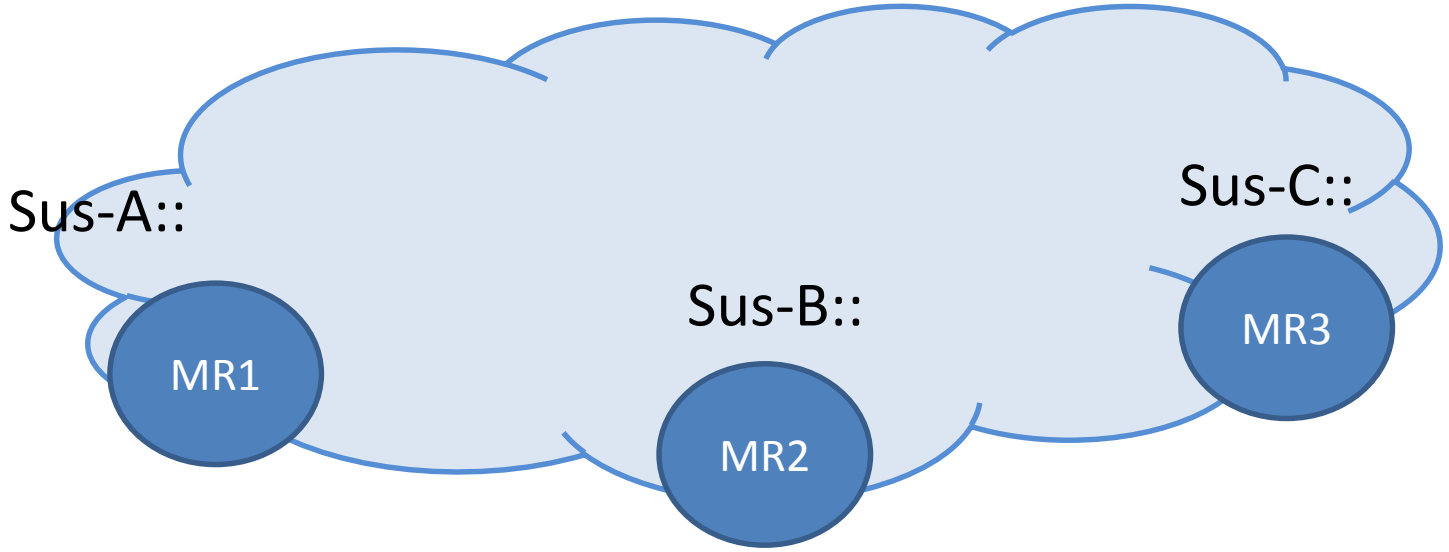
Prior RFC

- RFC 3484, “Default Address Selection for IPv6”

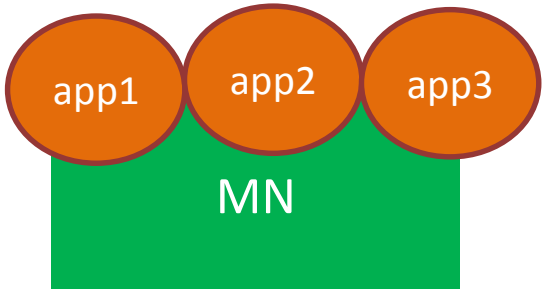
- For example,
  - Rule 8: Use longest matching prefix.
  - If CommonPrefixLen (SA, D) > CommonPrefixLen(SB, D), then prefer SA.

Example

- app1 was assigned with Sus-A::
- app2 was assigned with Sus-B::



- app3 should get Sus-C::?



ON_NET property

- IPV6_XX_SRC_ON_NET
  - /* Require (or Prefer) an IP address based on a requested IP address type as source, assigned from the current serving network, whatever it has been assigned or should be assigned */

Way Forward

- Adoption for a WG document?