

IPv6 Scoped Address Architecture

<draft-ietf-ipngwg-scoping-arch-03.txt>

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Changes From 02

- revised the textual representation
 - support "scope type + zone ID" (like "4+28")
- simplified the mobility section
 - recommend to use global HA and CoA
- clean-ups in related documents
 - removed site-prefix and the adv. API
- editorial nits

New Textual Representation (1/2)

- Include scope type in the zone ID format
 - based on a discussion in the ipngwg ML
 - zone ID itself can be used in another context
 - e.g. in MIBs
- `<address>%<zone_id>`
 - `<address>`: a literal IPv6 address
 - `<zone_id>`: scope type + zone identifier (decimal)
 - the scope of `<address>` must be equal to the scope of `<zone_id>`
- Actual encoding of `<zone_id>` is implementation dependent.
 - 4+28, 28+4, etc...
 - An example of using the "4+28" encoding
 - site ID 2 = 1342177282 = 0x50000002
 - fec0::1%1342177282

New Textual Representation (2/2)

□ Zone ID aliases for readability

- "scope string" + "numeric zone ID"
 - "link", "sbnt", "admn", "site", and "orgn"
 - example: fec0::1%site2
- no alias for global zone IDs
- leave aliases for other scope types undefined

□ Interface names as zone ID

- still optional (a MAY)
- can be used as "default IDs" for interfaces, links, and subnets
 - ff01::1%ether2
 - fe80::a%tunnel10
 - ff03::1234%atm5

Mobility Issues

- 1. How should a MN act outside the home zone?
 - is it possible to use a site-local HA outside the home site?
- 2. Can site/link-local addresses be used as CoA?

- In the 03 draft
 - for 1, describe a simple "hole" model
 - a node cannot act as a MN outside its home zone.
 - for 2, recommend to use global CoAs
 - there is no standard way to tell if the MN and/or CN are in the home zone.

- Need more consideration in the next revision

Next Step

- TODOs
 - editorial improvements on textual representation
 - add more consideration about mobility

- one more revision, then last call?