

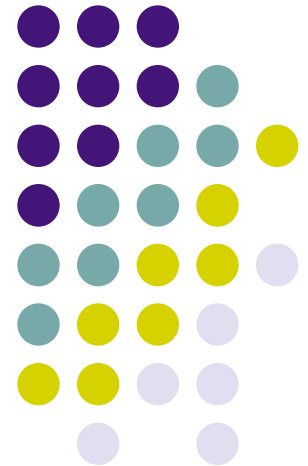
# MIF DHCPv6 Route Option Update

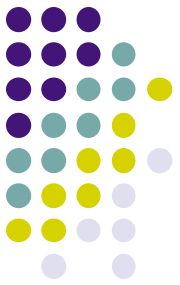
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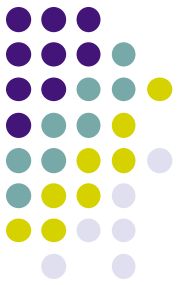
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# Background and Update 1/2

- A DHCPv6 based route configuration mechanism for dealing with multi-homing
- Discussion on the mailing list:
  - Applicability to 3GPP. Clarified by adding proposed text
    - *“The solution described in this document applies to multi-homed scenarios including ones where the client is simultaneously connected to multiple access network (e.g. WiFi and 3G). “*
  - Various editorial comments. Will be resolved in next revision
- RtgDir Review

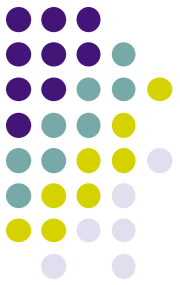


# Background and Update 2/2

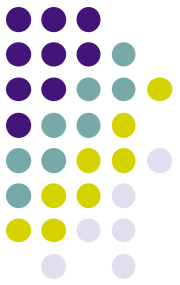
- RtgDir Review
  - Editorial clarifications regarding references and allowed message types
  - Clarified that

*“The maximum number of routing information in one DHCPv6 message depend on the maximum DHCPv6 message size defined in [RFC3315]”*

# Open items 1/2



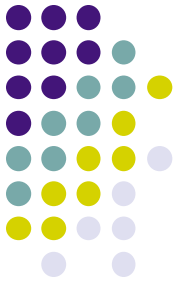
- Routing into black holes
  - It has been commented that the draft does not specify a mechanism for avoiding routing “into black holes”.
  - This was an original design assumption, ie DHCPv6 is used to configure a static route but not verify the validity of that route.
  - Two basic mechanisms are in place to allow route update:
    - A) Regular DHCPv6 Refresh with the route option
    - B) Flushing of routes following a link flap on the DHCPv6 client interface
  - Discuss...



# Open items 2/2

- DHCPv6 specific:
  - Method of grouping options (IA\_NA, IA\_TA and IA\_RD) using an identifier
  - How should server indicate that there are no specific routes for a particular client? Eg Return an Empty Route Option or Return no route option?
- May be best to solicit input from DHCPv6 WG...

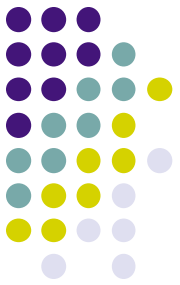
# Backup



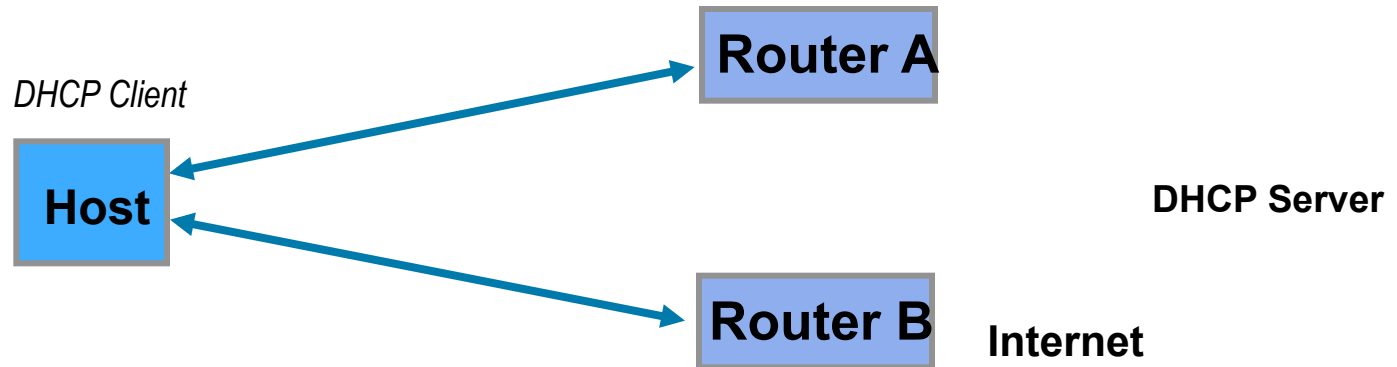
# DHCPv6 Route Option

## Basic Scenario – Multi-homed MIF Client

*(Access-network not shown)*



IP Subnet X/Y



- Dual links (physical or logical) from Host to Router A and B
- It is desired that Host uses Router B as its default gateway (0/0)
- It is desired that Host uses Router A as its primary gateway for destination subnet X/Y. More specific route to X/Y via Router A is thus required.
- It is required to operate in an environment where per client configuration on the Router is not possible
- Additional scenarios in draft-troan-multihoming-without-nat66