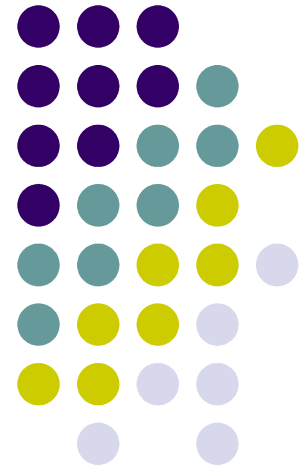


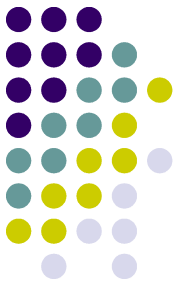
Dual-stack clients and merging of data from DHCPv4 and DHCPv6

draft-venaas-dhc-dual-stack-merge-00.txt

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Dual-stack hosts and DHCP



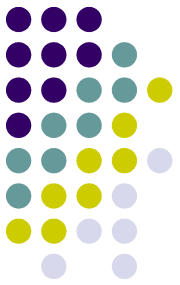
- Looking for solutions of draft-ietf-dhc-dual-stack-03
- How can dual-stack hosts use DHCP to obtain desired configuration
 - Might want mix of IPv4 and IPv6 settings
 - Run both DHCPv4 and DHCPv6?
- IPv4-only clients use DHCPv4
- IPv6-only clients use DHCPv6
- All of these clients should get the desired config
 - The IPv4 configuration for dual-stack host may differ from IPv4 configuration for IPv4-only host
 - Similarly for IPv6

Some possible tools



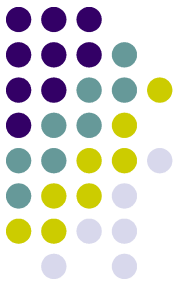
- Host may prefer either IPv4 or IPv6 when obtaining conflicting information
 - Do we need DHCP option for preference?
 - Use fqdns as option values when possible
 - Then preference will be based on e.g. RFC 3484
- Server may need to know whether client is dual-stack in order to give different IPv4 info to IPv4-only and dual-stack clients
 - E.g. server may omit some IPv4 info if it knows client is dual-stack and will get some other info from IPv6
 - Similarly for IPv6

More tools



- DUID and integrated DHCPv4/DHCPv6 server
 - By use of this a server may need that client now asking for DHCPv4 (v6) info is the same that previously asked for DHCPv6 (v4) info
- Useful to have DHCPv6 option to tell client to do IPv4 DHCPINFORM?
 - Client may have static IPv4 addresses and by default not intending to obtain stateless IPv4 info
 - Not so sure this is useful
- IPv4-mapped addresses in DHCPv6
 - Not sure we want this but has some uses
 - E.g. if want a mixed list of IPv4 and IPv6 addresses for an option, this may be the easiest way

Solving the problem



- We're not trying to solve the problem right now
- We're rather looking at possible techniques that might be part of a solution
- The suggested techniques/tools may address some of the issues, but many issues not addressed
- Are there other tools than the once listed?
- We probably need more experience to understand which issues are more important and which techniques may be used
- Idea with the document is to list and discuss different techniques and update it as our experience grows
- We will also try to discuss how a subset of these tools can be used together to address the issues
- We may need to decide which issues are worth solving
 - Solution to a problem may be too complex to be worth doing