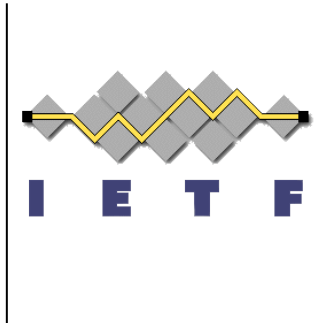


IPv6 Address Selection Considerations

Tim Chown (editor)
tjc@ecs.soton.ac.uk
(see draft for design team credits)

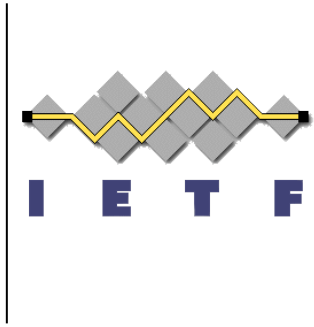


IETF 75, Stockholm, 26-31 July 2009



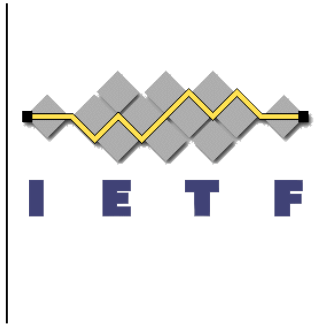
Scope of draft

- Looking at RFC3484 policy update requirements
 - Frequency of updates – how dynamic might this be?
 - Approaches/solutions given the frequency/scenarios
 - Host detection/communication of policy changes
 - Potential RFC3484 ‘default’ rule/policy updates
- New draft available
 - draft-chown-addr-select-considerations-03
 - (output of the Design Team)



General scenario focus

- Enterprise/site network
- Administrator wants to convey policy to hosts
 - Desired policy may be different to (current) 'default' RFC 3484 policy
 - Policy may vary across site
 - By topology
 - By time
 - May have nomadic nodes within the site
 - Policy may change as nodes move within topology



Changes since -02 (1/3)

- Some discussion since IETF74:
 - Noted differing administrative domains in scope
 - A new (separate) policy conflict draft now published
 - Noted that multiple interfaces are in scope
 - Described two common cases (VPN, wireless)
 - Noted many OSes have already modified 3484
 - Seeing divergence from current RFC 3484
 - Suggests revision of RFC 3484 very timely to reinstate a commonly understood 'default'

Changes since -02 (2/3)

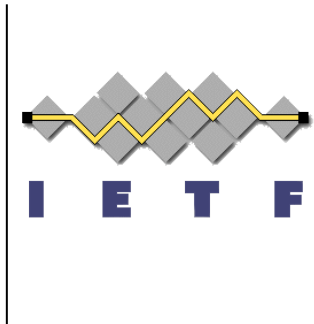


- On address selection policy updates:
 - Noted policy updates not frequent unless site TE changes frequently or hosts migrate frequently to areas of site with different policy
 - Thus update frequency generally not that different to general configuration requests (e.g. via DHCPv6)
 - Noted that managed (e.g. enterprise) networks tend to have policy that needs to be distributed
 - Suggests DHCPv6 an appropriate solution
 - Unmanaged networks probably don't have policy
 - Implies some dynamic solution? Routing hints?



Changes since -02 (3/3)

- References to some new drafts:
 - Added ref to policy conflict draft
 - draft-arifumi-6man-addr-select-conflict-00
 - In very early stages
 - Added ref to v4+NAT vs v6 problem
 - draft-denis-v6ops-nat-addrsel-00



Next steps?

- Continue work on this DT draft
 - Adopt as WG item (was suggested at IETF74)
- Progress RFC 3484 update
 - Re-establish 'default' behaviour (policy table)
 - Define tables, do not preclude algorithmic changes
 - We have draft-arifumi-6man-rfc3484-revise-01 as a basis
- Progress policy update distribution draft
 - DHCPv6-based
 - Note that draft-fujisaki-dhc-addr-select-opt-07 already exists
- Progress policy conflict draft