

IPv6 Address Selection Status Update

draft-arifumi-6man-addr-select-conflict-01

draft-ietf-6man-addr-select-sol-02

draft-arifumi-6man-rfc3484-revise-02

draft-fujisaki-dhc-addr-select-opt-09

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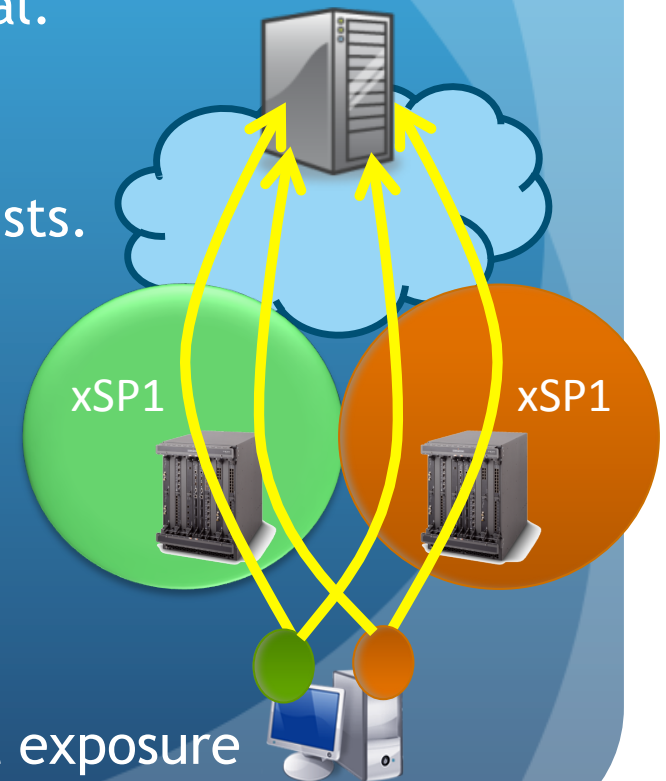
Status Update

- Solution space discussion
 - <draft-ietf-6man-addr-select-sol>
 - pro/con discussion on simultaneous connection trials approach (aggressive mode)
- Policy update mechanism brush-up
 - policy merging mechanism slightly updated
 - <draft-arifumi-6man-addr-select-conflict-01>
 - policy processing part now supports above mentioned aggressive mode.

Simultaneous connection trials

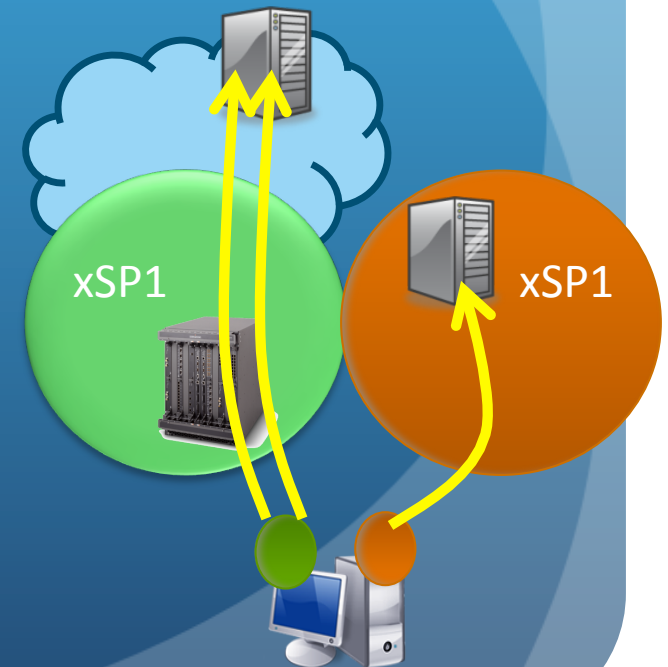
[discussion in the ML]

- Idea is very simple
 - it tries all pairs of src-dst address pairs in very short time.
 - it makes use of cache to save useless trial.
- Pro
 - no fallback frustration, only if a path exists.
- Con
 - unnecessary traffic/load
 - ex: DNS query doubles, triples ...
 - implementation impact
 - shim layer way, or application based way
 - security implication, ex: src. address list exposure



Policy is necessary for this case also

- Why ?
 - For security risk. We do not want to expose internal-use addresses.
 - To be network friendly. We do not want to DDoS attack, for mutual benefit.
 - To use ISP's private service. ex) address based contents access control of IPTV
- What kind of policy ?
 - Narrowing down src. addresses.
 - Precedence of dst addresses.



About policy distribution

- We assume both cases, a host with normal stack and a host with aggressive stack.
 - ex) DHCP Request can be used to express stack's capability.

- Normal stack

- Distributing policy needs no change

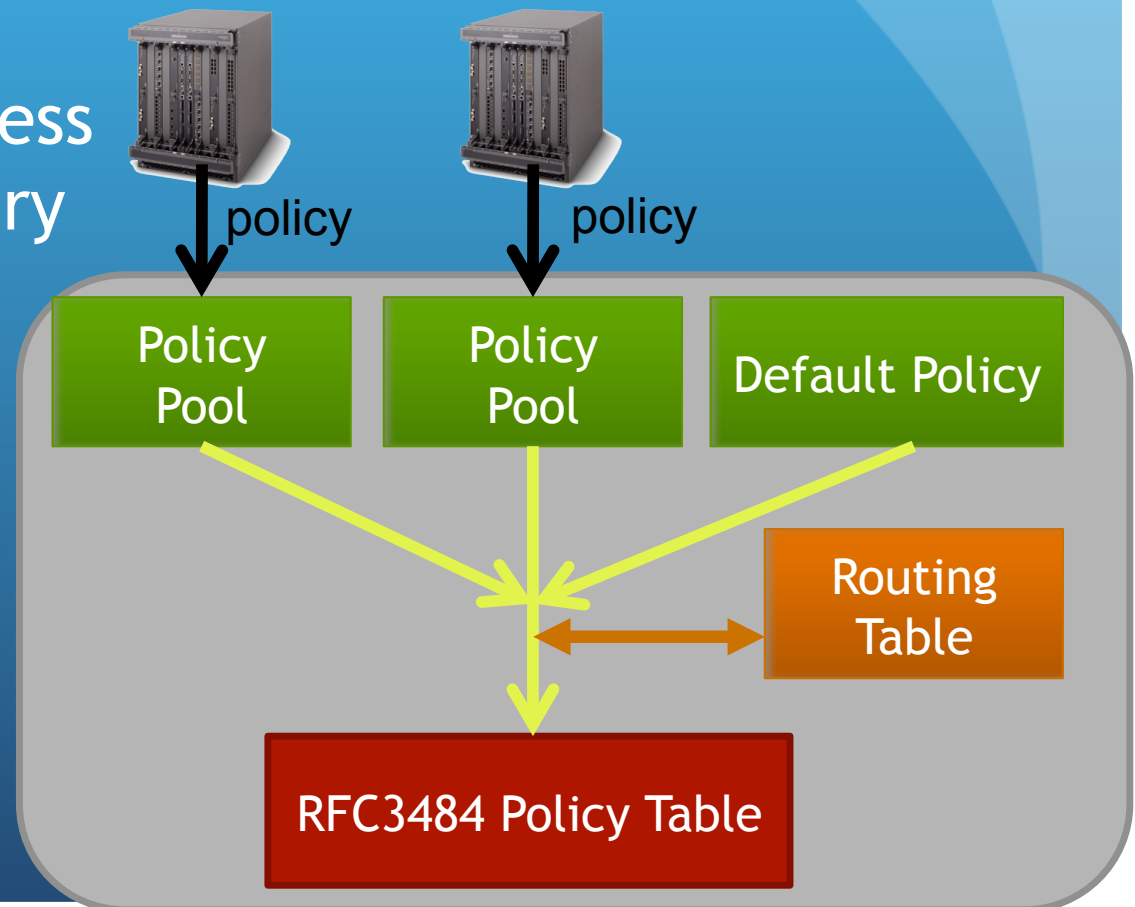
Prefix	Prec	Label
2001::/32	10	20
fd00::/8	20	30

- Aggressive stack

- We can learn/share a lot from shim6 activity.
 - “locator-pair selection table” of shim6 can be used.
 - <draft-ietf-shim6-locator-pair-selection-04>

Policy merging for normal stack

- The whole picture
 - policy is pooled
 - The merge process is kicked by every change of related part.
- Re. aggressive stack, needs more work.



Next Step

- When can we start protocol work in dhcp ?
 - Almost agreed about DHCP to deliver policy before.
- Ready to go, regarding normal stack first ?
- Or, wait until aggressive stack solution is baked ?