

Avoiding hairpinning NAT64: a handful of approaches

draft-wing-behave-dns64-config-02

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The Problem:

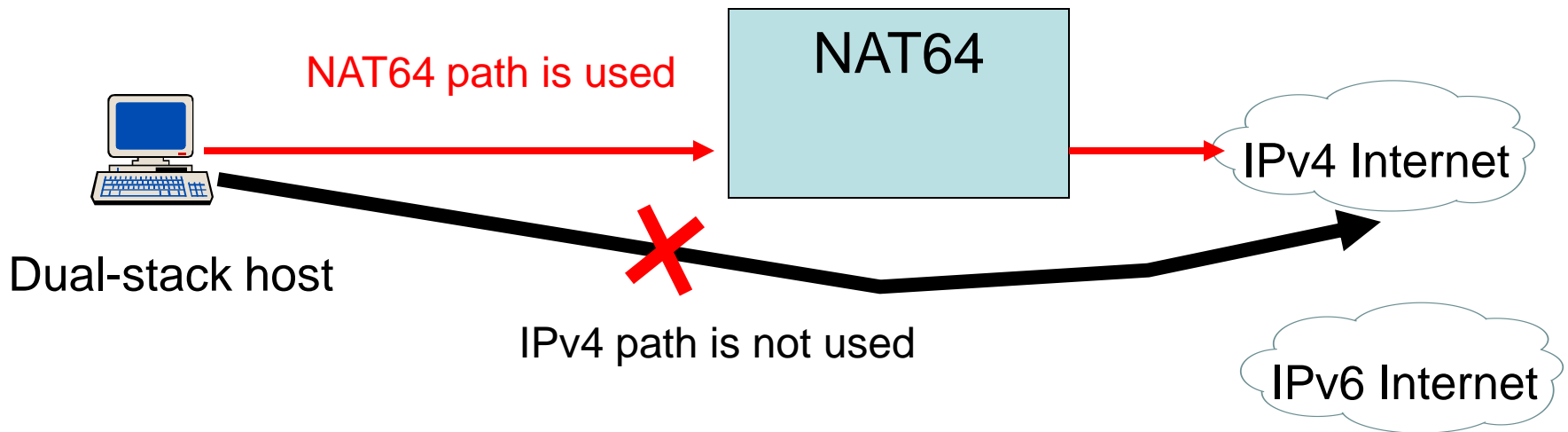
Dual-Stack Hosts use NAT64

- A network might contain IPv6-only and dual-stack hosts
- All hosts query DNS64
- Problem: if dual-stack hosts query DNS64, they will use NAT64
 - When they could have gone native IPv4

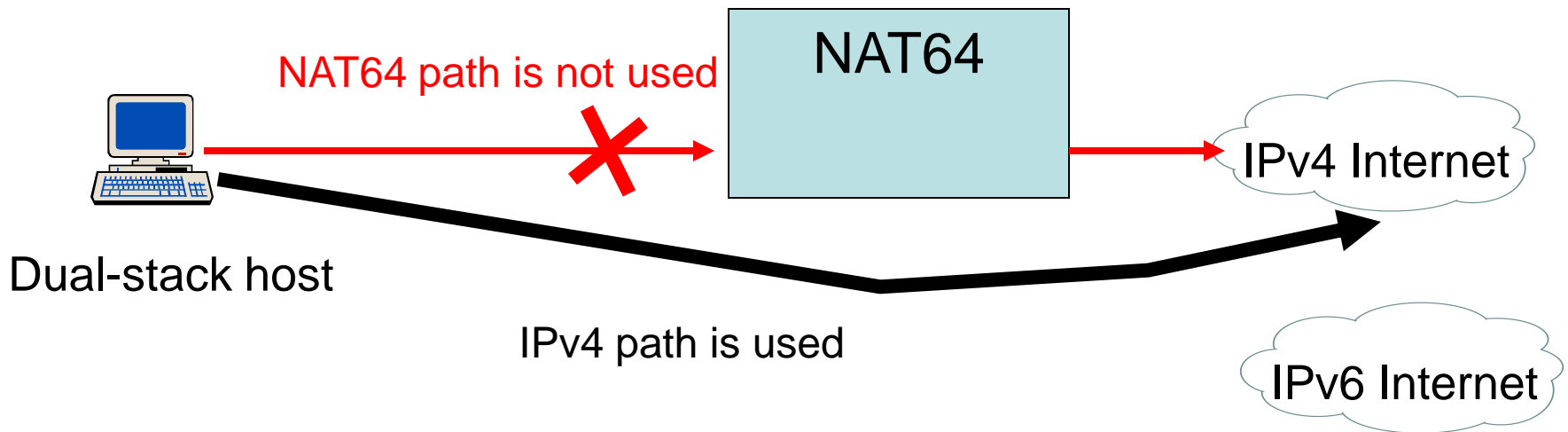
draft-wing-behave-dns64-config

- -02 describes 6 methods
- -03 (not published) describes 10 methods
 - Includes all proposals from mailing list and existing I-Ds
- Various mix of no changes to dual-stack hosts, changing IPv6 hosts, changing DHCPv6 servers

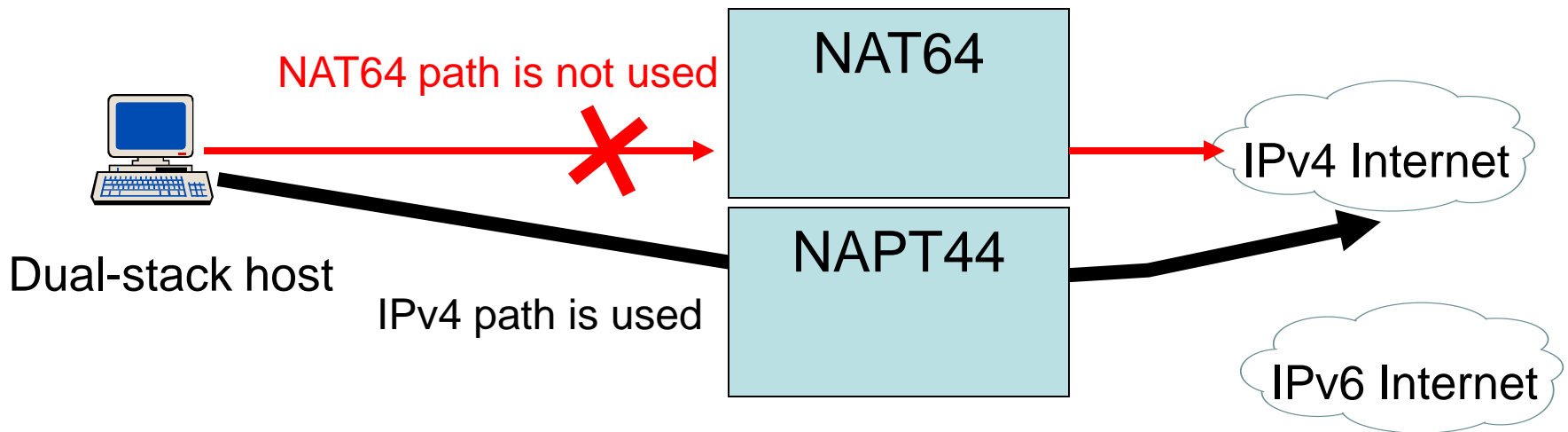
Problem in a picture



Solution in a picture



But – often there is a NAT44



- Often, the only gain is NAT44 instead of NAT64

Question

- Should we optimize Dual-Stack hosts on so they can avoid NAT64, and use IPv4?

Questions

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