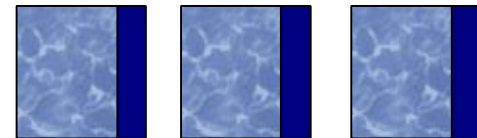# Implementation and Interoperability issues in Mobile-IPv4

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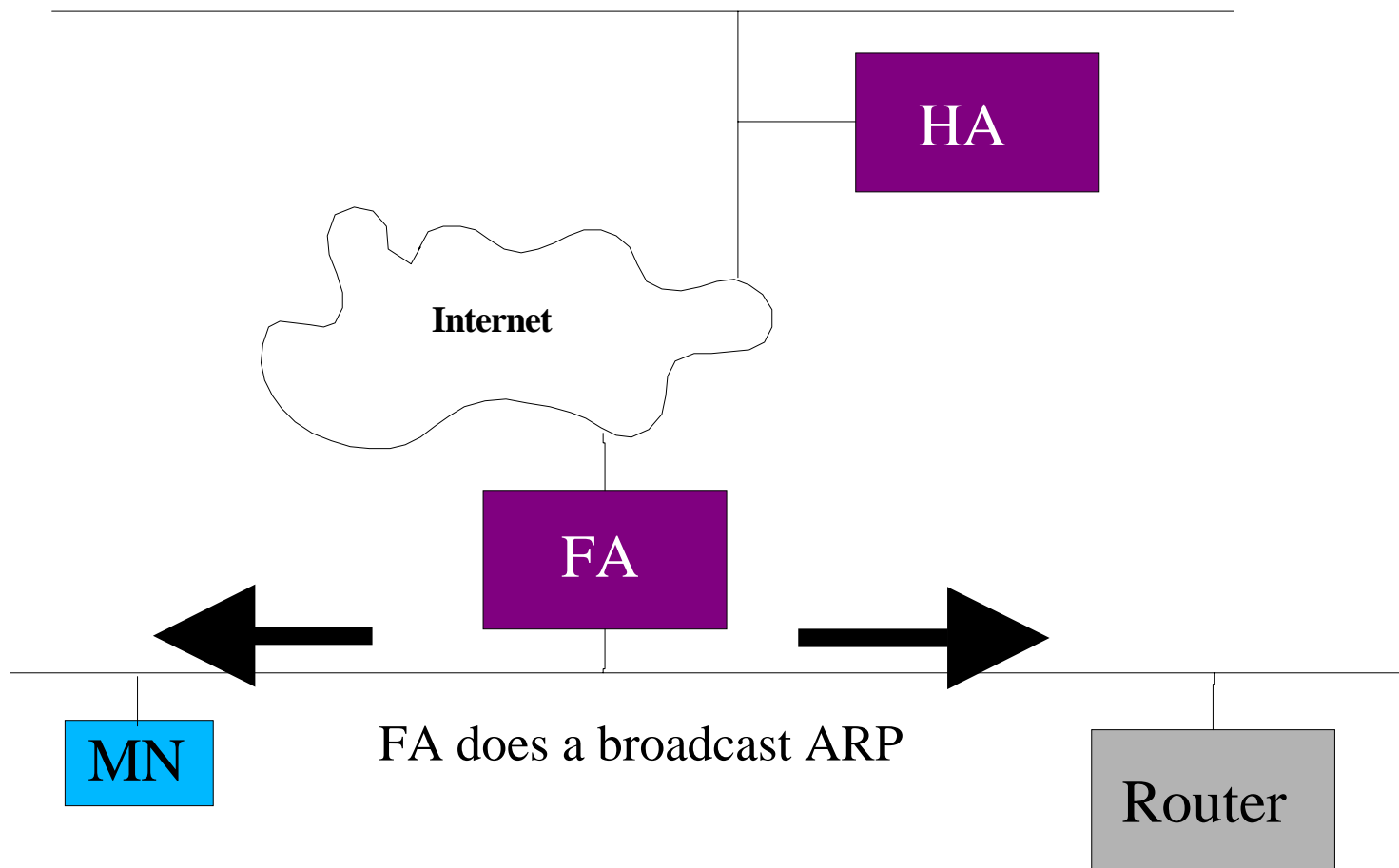
Outline of talk
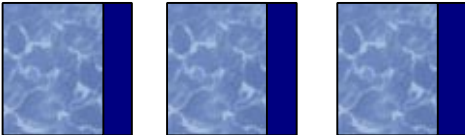
` FA and broadcast ARP'ing
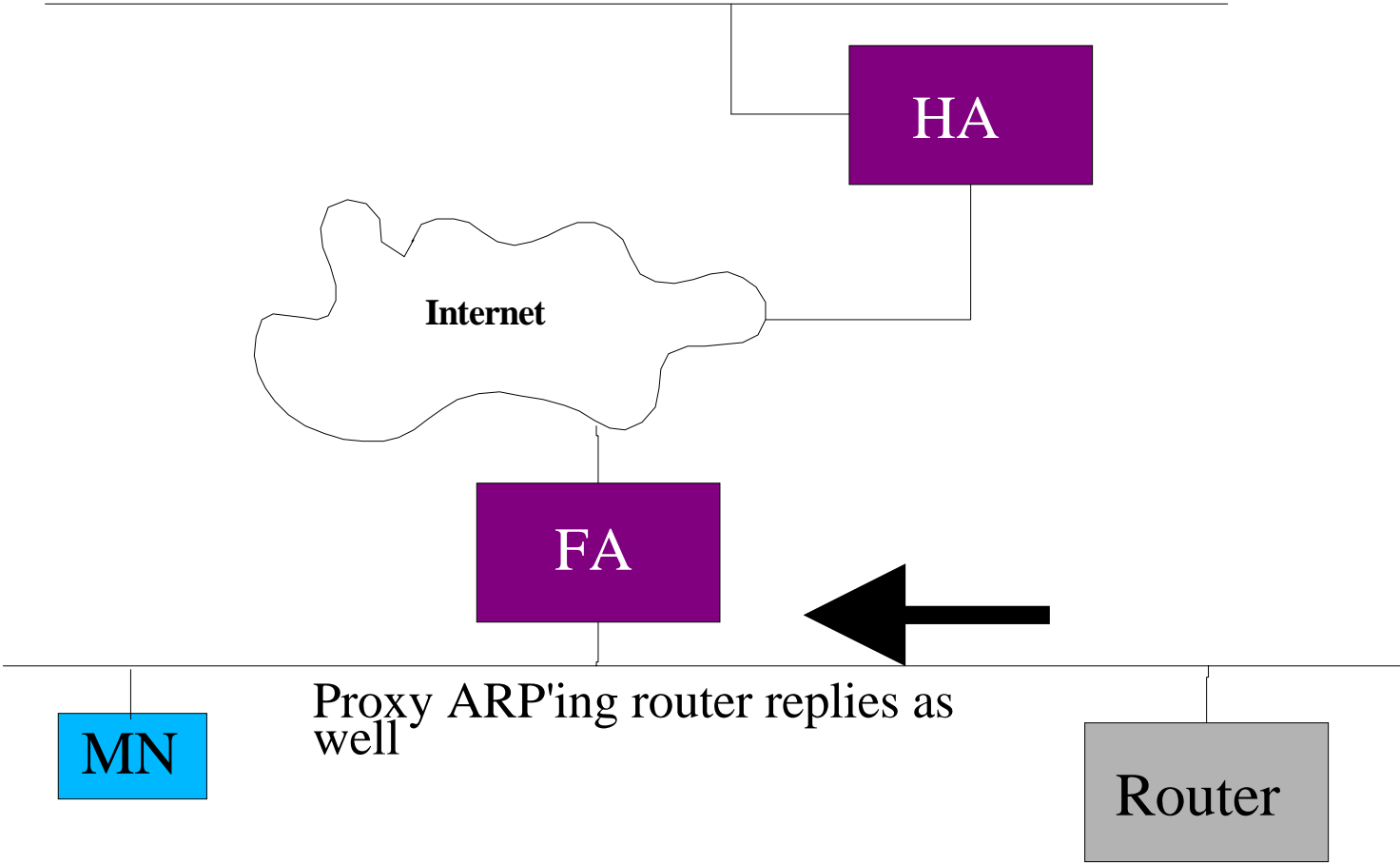` Getting MN's source link layer address
` Routing traffic to MN from CN

FA and broadcast ARP'ing

Internet

HA

FA

MN

Router

FA does a broadcast ARP

FA and broadcast ARP'ing

HA

Internet

FA

MN

Proxy ARP'ing router replies as well

Router

FA and broadcast ARP'ing

Packet destined for MN

HA

Internet

FA

MN

Routing loop illustrated
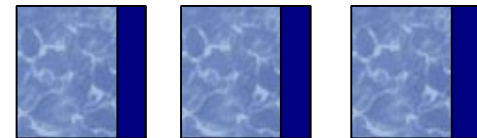
Router
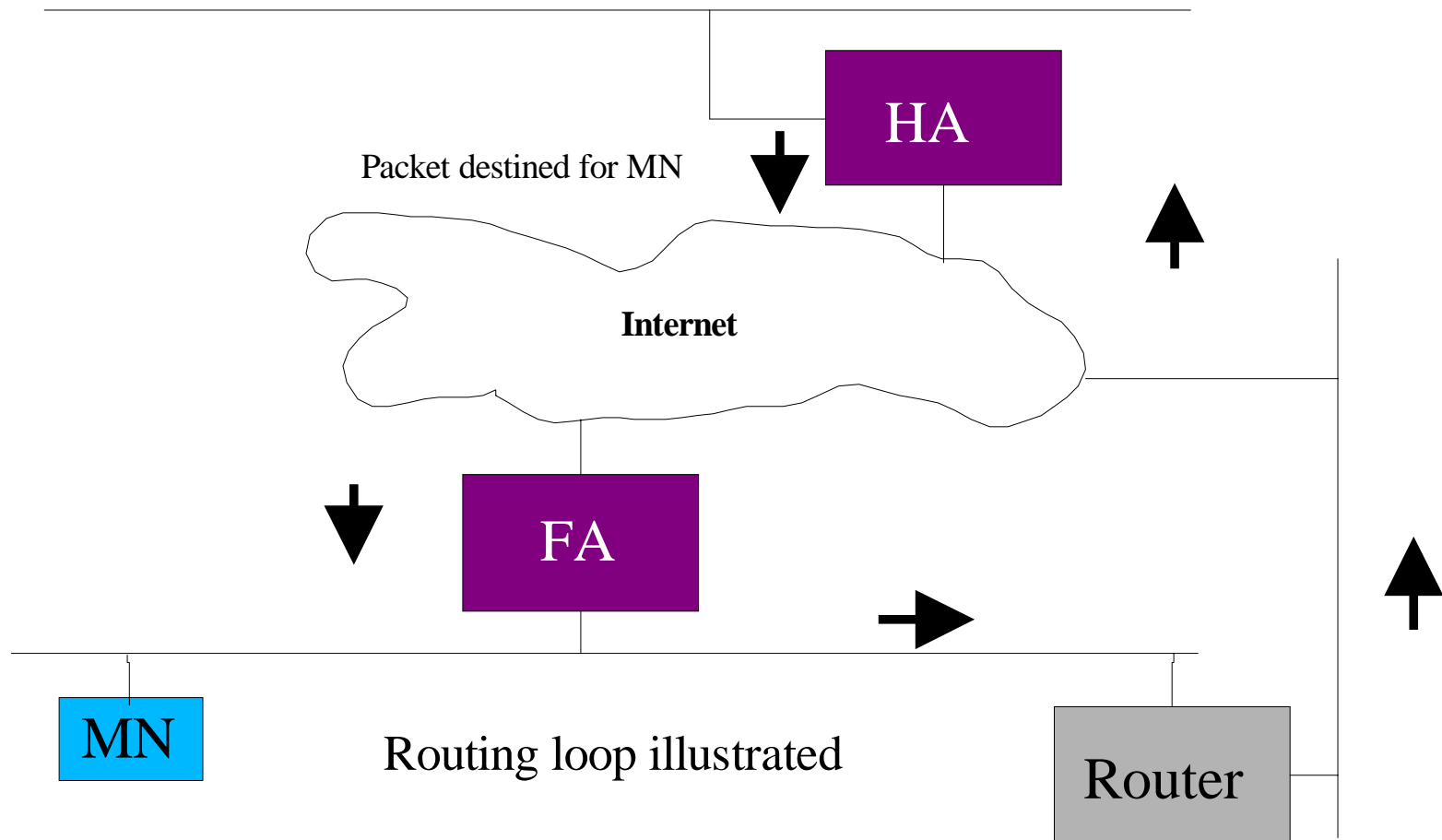
FA and broadcast ARP'ing

` Prevention:
  ` Get MN's source link layer address from Registration request.
  ` Add entry in ARP cache pre-emptively
  ` Mark entry as permanent
  ` Delete entry when MN removed from visitors list

Getting source link layer address

` Get it from Regsitration request

` To prevent the FA from broadcast ARP'ing

` Problem:

  ` Device drivers could be third party, hence no control over what link layer header information gets passed up the stack

  ` Have to rely on heuristics e.g: 14 bytes before IP header is the ehernet header

Routing MN traffic from CN

HA

FA

FA as default router
(inadvertenly shortcuts packet from CN)

MN

CN