

Enhanced mobility anchoring wt

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Work since IETF93

- ◆ draft-chan-dmm-distributed-mobility-anchoring-05
 - rewrite draft to explain moving anchor (mid-session anchor switching) with references to other drafts
 - switch to IP anchor in new network: using new IP address if session continuity is not needed
 - switch to IP anchor in new network: using prior IP address if session continuity is needed
- ◆ draft-chan-dmm-distributed-mobility-anchoring-06
 - various corrections

IP prefix anchor switching

LM: IP1 \leftrightarrow IPER2
FM-CP

Net1

FM-DP

ER1: $\text{\color{red}\text{\char"27}}IP1$

DHCPv6-PD, BGP/SDN

anchor switching

Net2

FM-DP

ER2: $\text{\color{red}\text{\char"27}}IP1, IP2$

ER3: $\text{\char"27}IPCN$

②

③

①

MN(IP1):
flow(IP1, ...)

move

MN(IP1, IP2):
flow($\text{\color{red}IP1}$, ...)

CN:
flow(IPCN, $\text{\color{red}IP1}$,
...)

IP prefix anchor in new network

LM: IP1 ← → IPER2
FM-CP

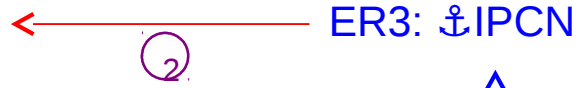
Net1
FM-DP
ER1: ⚓ IP1

MN(IP1):
flow(IP1,...)



Net2
FM-DP
ER2: ⚓ IP2

MN(IP2):
flow(IP2,...)

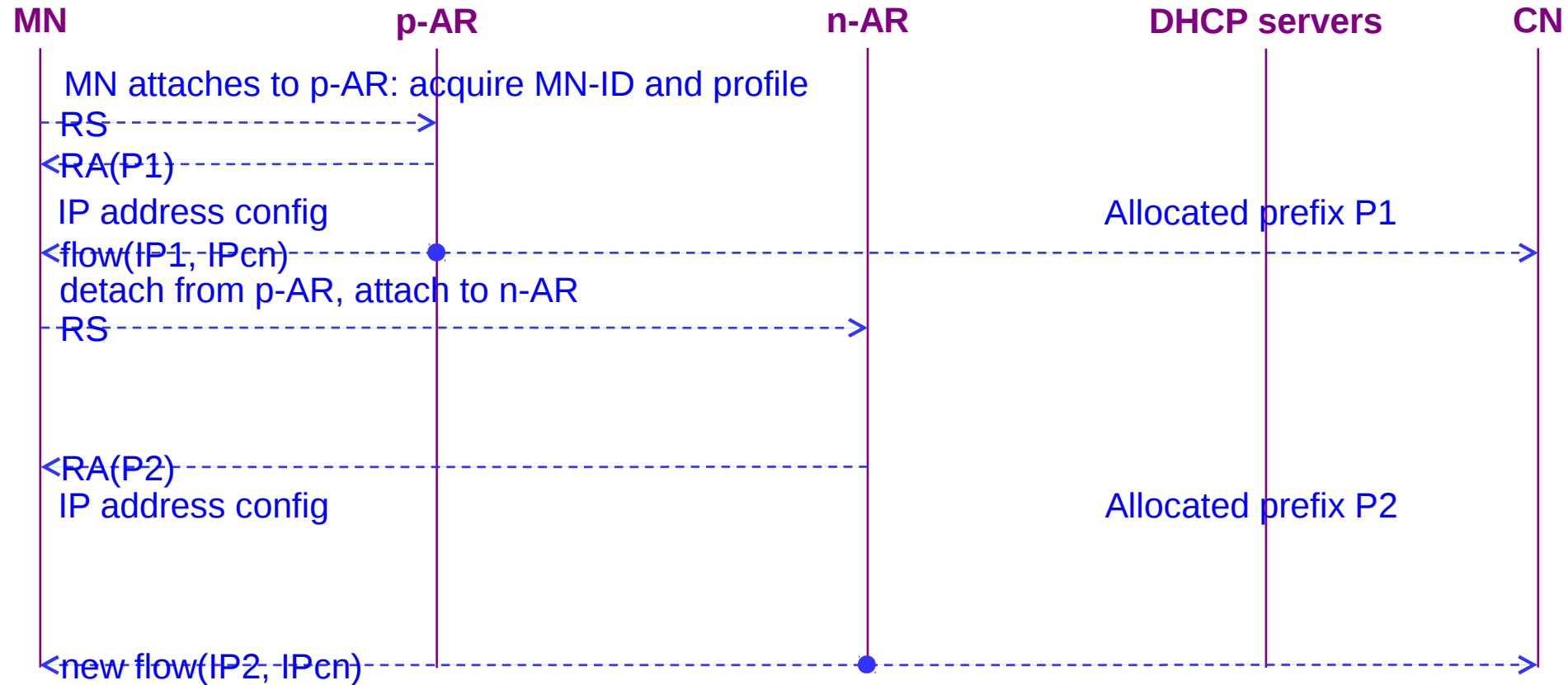


ER3: ⚓ IPCN

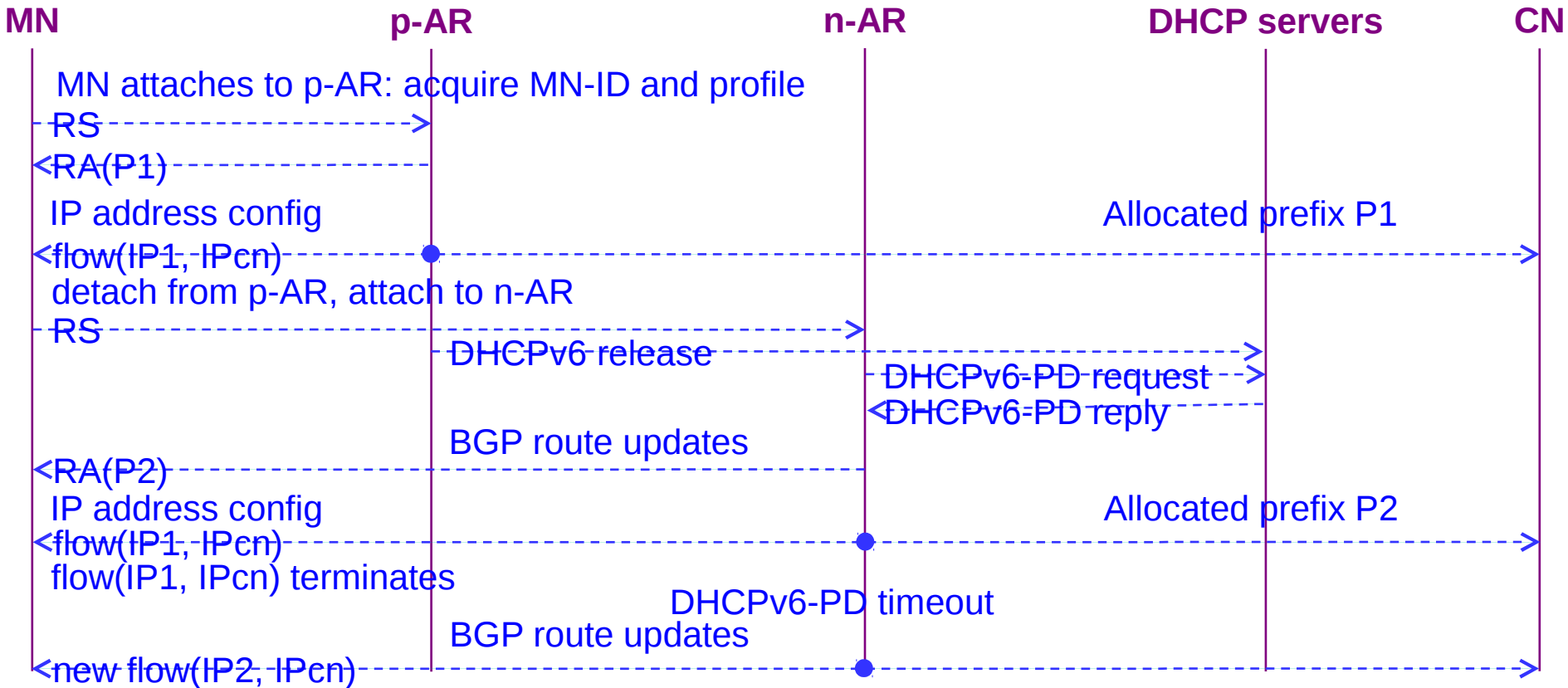
CN:
flow(IPCN, IP2,
...)



Changing anchor with new prefix



Switching anchor in mid-session



Relations to work of other wt

- ◆ Exposing mobility state wt
 - anchor switching is needed only some IP prefixes
 - drafts on these proposals are referenced
- ◆ Forwarding path and signaling management wt
 - anchor switching may take place in a network with separate control and data planes.
 - the BGP route update messages and the DHCPv6-PD messages may be turned into messages between control plane and data plane.
- ◆ Deployment models and scenarios wt
 - anchor switching may apply to the scenarios where the control plane functions FM-CP and LM server may be centralized or distributed, where
 - Internetwork Location Management (LM) function:
 - LM may be a logical function at CPA and CPN
 - Forwarding Management (FM) function:
 - FM-CP may be a logical function at CPA and CPN
 - FM-DP may be a logical function at DPA and DPN
 - FM-DP may be distributed in distributed mobility management
 - LM, FM-CP may each be centralized or distributed

Backup Slides

Enhanced mobility anchoring work item in dmm chapter

- ◆ Enhanced mobility anchoring: define protocol solutions for a gateway and mobility anchor assignment and mid-session mobility anchor switching that go beyond what has been specified, for example, in RFC 6097, 6463, and 5142. Traffic steering associated with the anchor switch is also in-scope if deemed appropriate.

Description of IP address/prefix anchoring

- ◆ An IP address, i.e., Home Address (HoA), or prefix, i.e., Home Network Prefix (HNP) allocated to a mobile node is topologically anchored to a node when the anchor node is able to advertise a connected route into the routing infrastructure for the allocated IP prefix.