CTP for PANA

draft-bournelle-pana-ctp-00.txt

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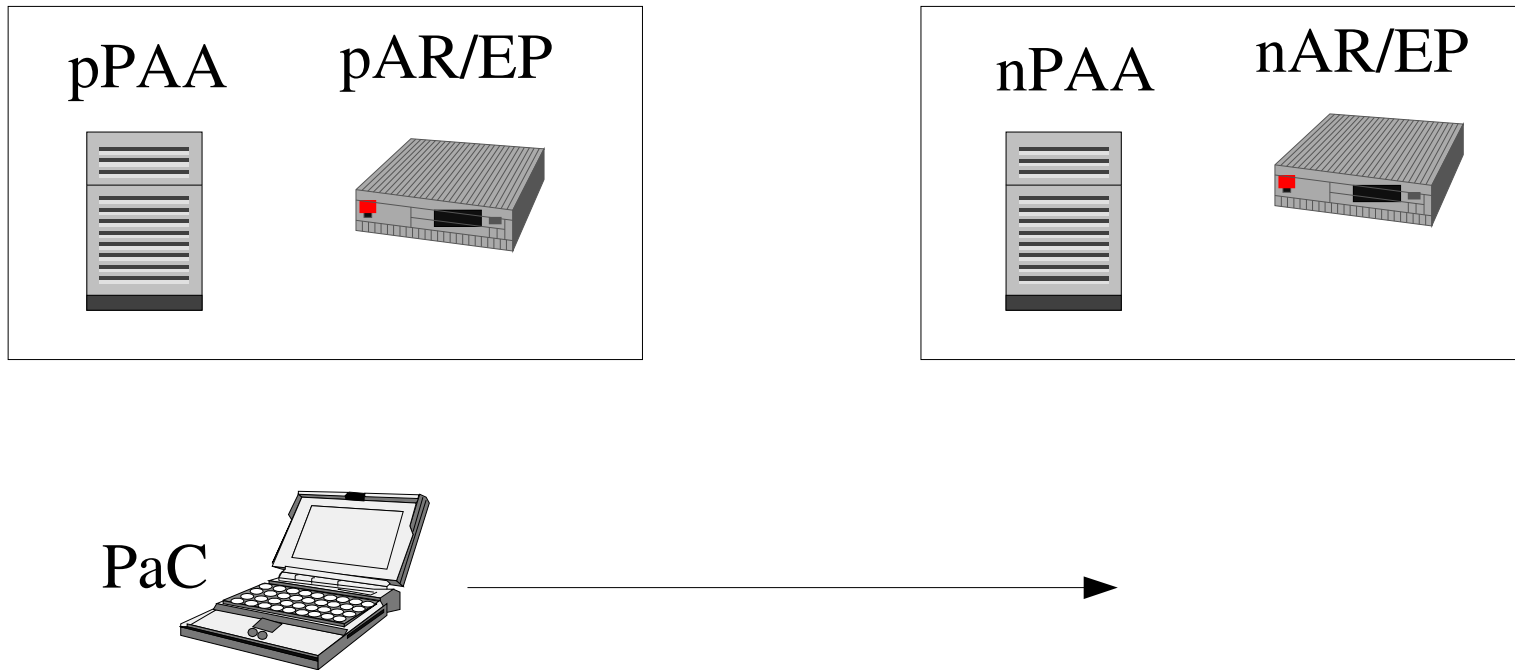
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Outline

- Problem

- Aim of this I-D

- Issues

Re-authentication from scratch ?

pPAA pAR/EP

nPAA nAR/EP

PaC

nPAA will authenticate PaC whereas it has already been authenticated by pPAA

Basic ideas

- Use of CTP should improve handover performance in mobile environments

- PANA specs handle this problem in section 4.12 "Mobility handling" and mention use of CTP

- This draft tries to detail procedure and specify what should be transferred as required in CTP.

  "`Contexts are identified by FPT code, which is a 16-bit unsigned integer. The meaning of each context type is determined by `**`a specification document`**` and the context type numbers are to be tabulated in a registry maintained by IANA [IANA]...`"
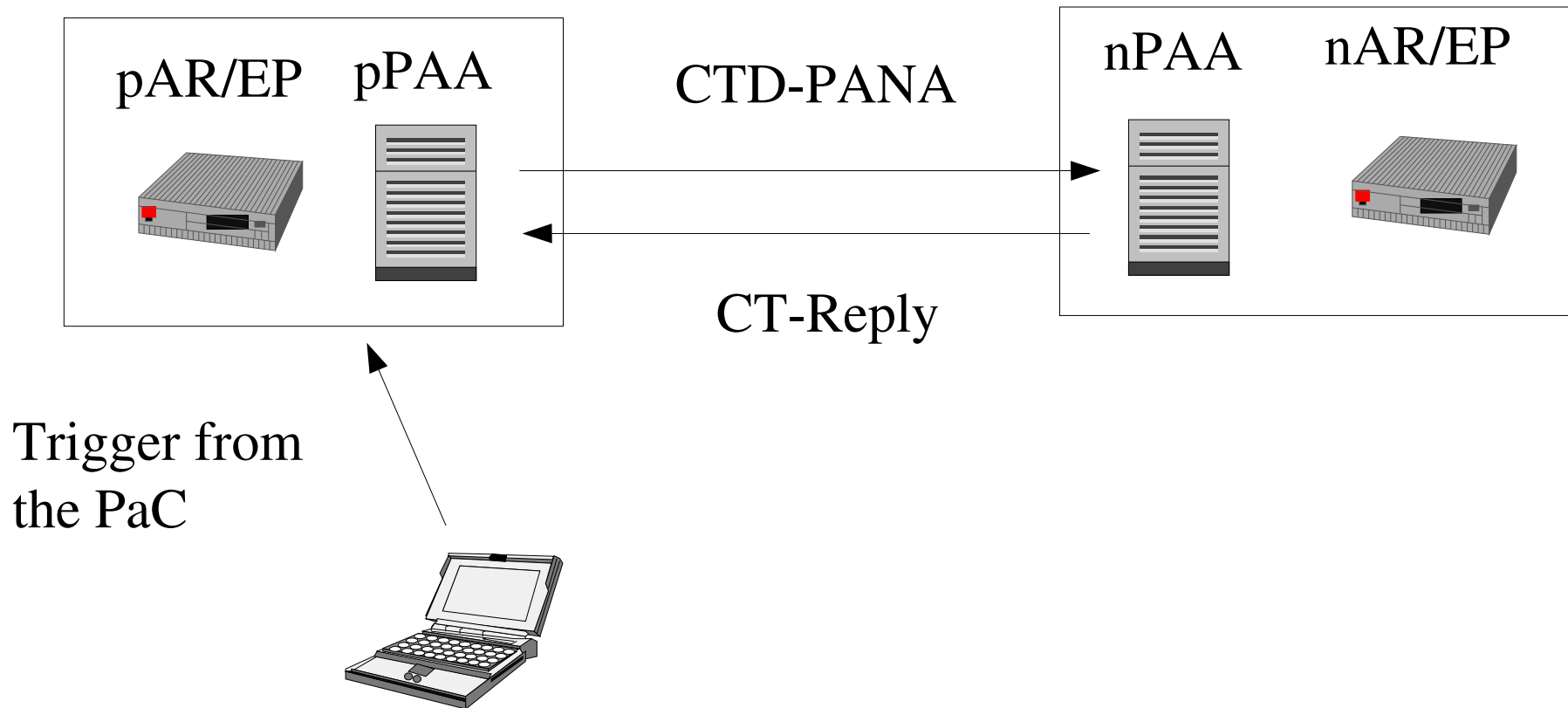
2 cases to be considered

- Reactive case

  - CTP after the IP handover

- Predictive case

  - CTP before the IP handover

Reactive case

pAR/EP   pPAA

CT-Request

CTD-PANA

nPAA   nAR/EP

Trigger from the PaC
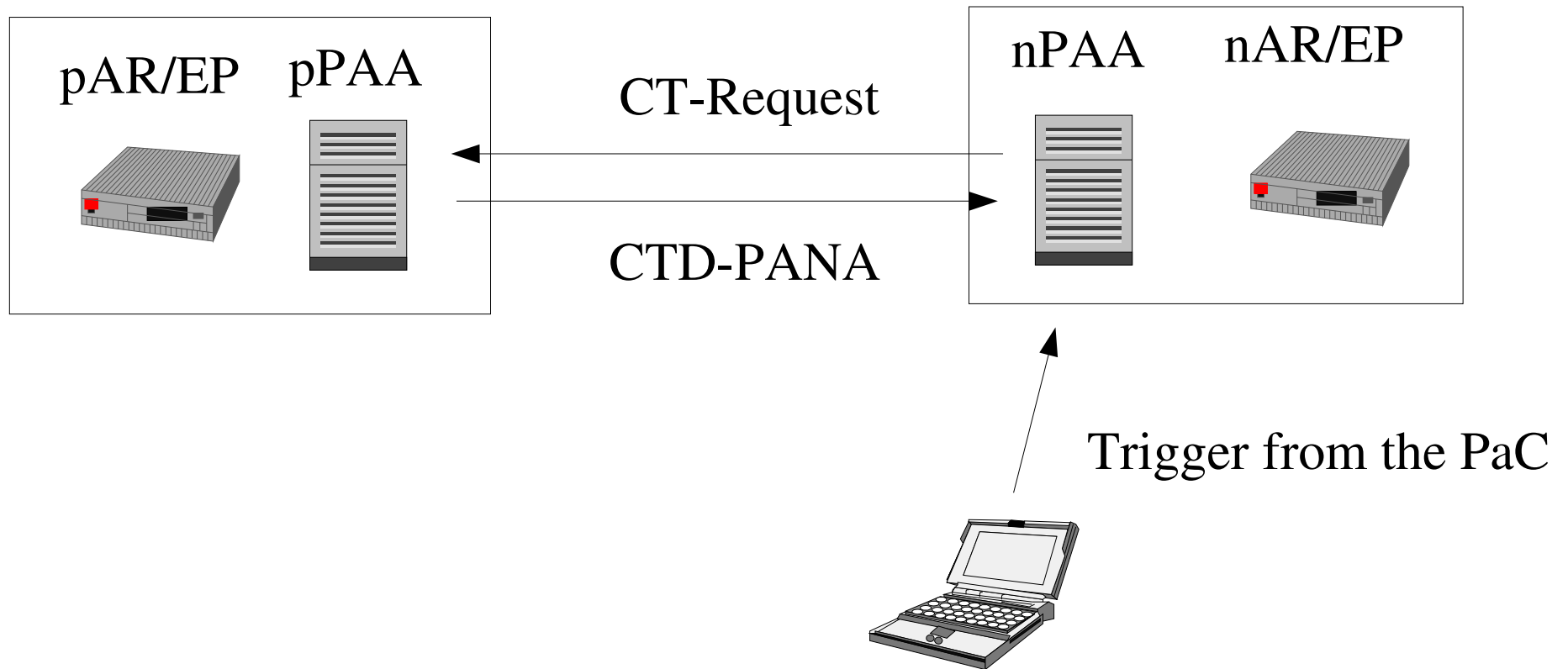
- PaC has already performs its IP handover

Predictive case

pAR/EP   pPAA   CTD-PANA   nPAA   nAR/EP

CT-Reply

Trigger from
the PaC

- PaC knows its nAR/EP

- After handover, PaC must confirm

Various issues (I)

- CTP mentions use of CTAR message to trigger the transfer.

  - seems necessary in predictive case

  - may be avoided in reactive case (cf. PANA spec)

- Who enables the transfer ?

  - in CTP: MN and pAR shares a key. The pAR validate an authentication token (CTAR)

  - if PAA (PANA module): can we still talk about CTP ?

Various issues (II)

- Do we need to introduce new state in state machine ? (in which state is the PAA during CTP transfer)

- PAAs are not ARs (CTP mentions ARs)

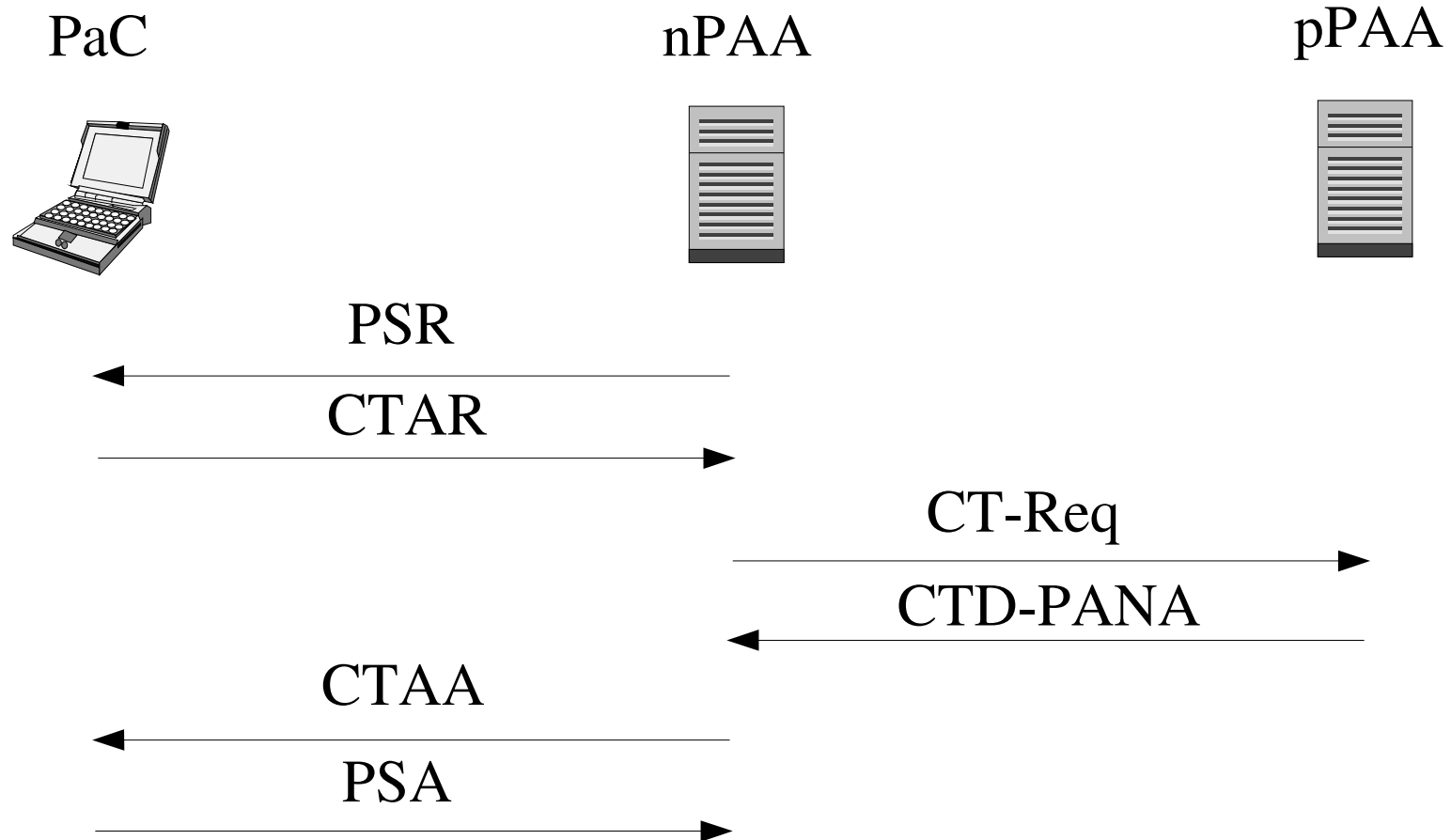- Should we handle inter-domain scenario ?
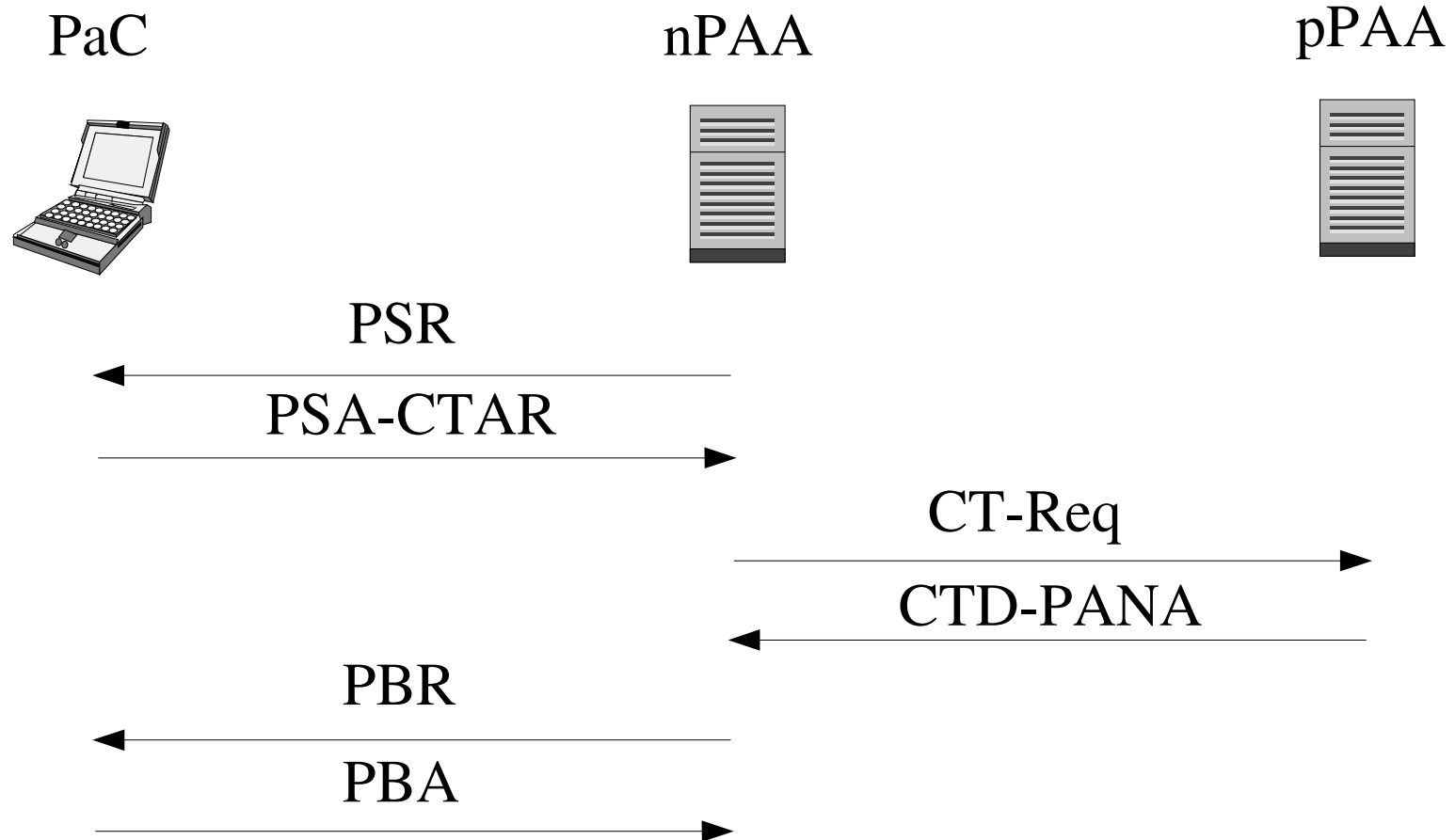
Thanks

Backup Slides

PANA Context

- Session-Lifetime Elapsed

- AAA-Key-int

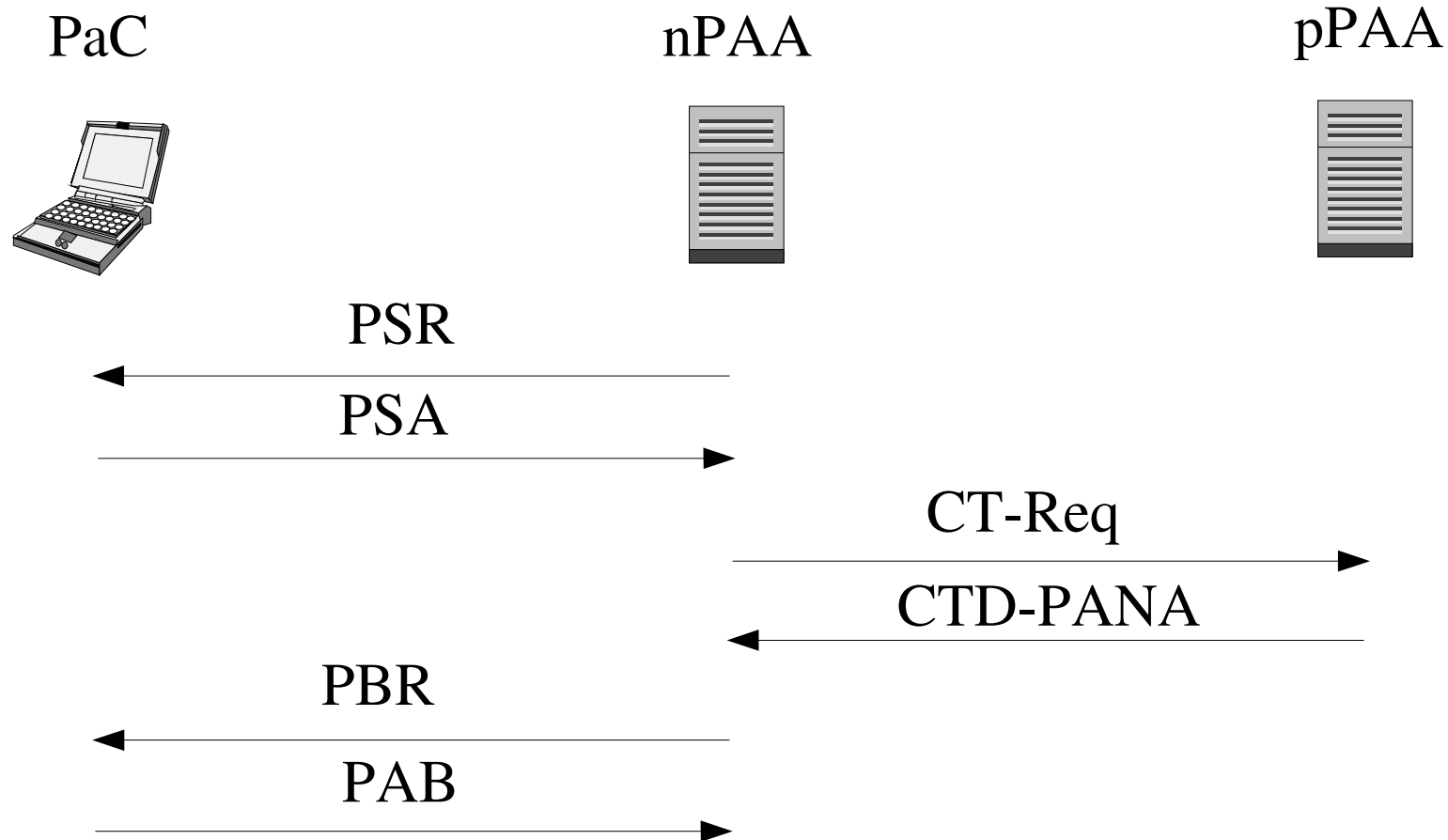- AAA server who performed the authentication

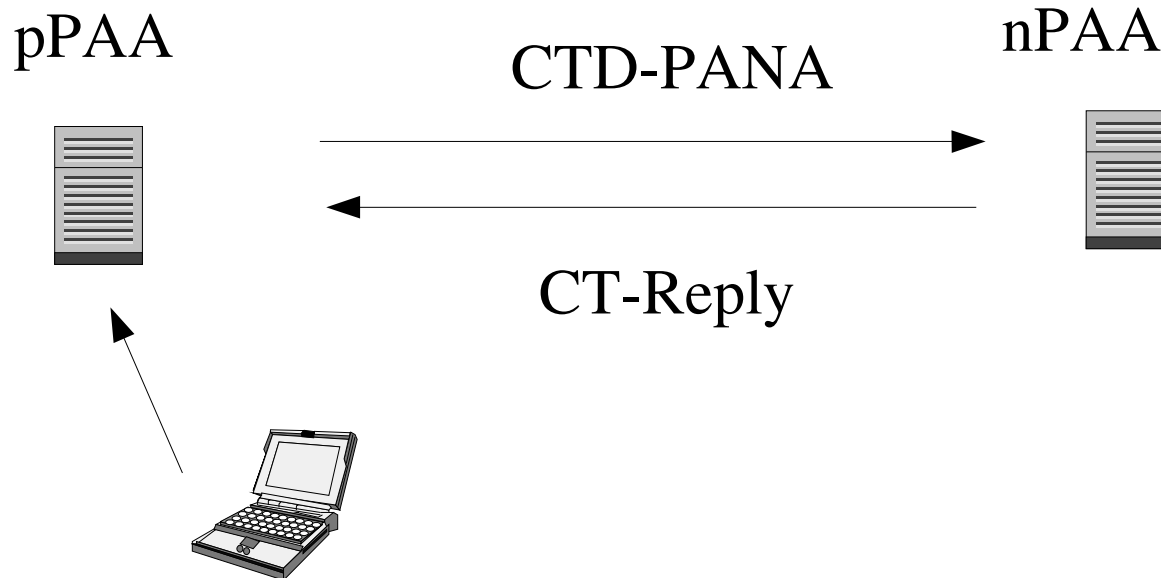# Reactive case: 3 approaches

Seamoby CTP friendly (#1)

Our proposal (#2)

PANA specs proposal (4.12) (#3)

PaC   nPAA   pPAA

PSR

PSA

CT-Req

CTD-PANA

PBR

PAB

Predictive case

pPAA   CTD-PANA   nPAA

CT-Reply

- PaC sends a CTAR to pPAA
- PaC must activate the context at nPAA: nPAA must validate this request