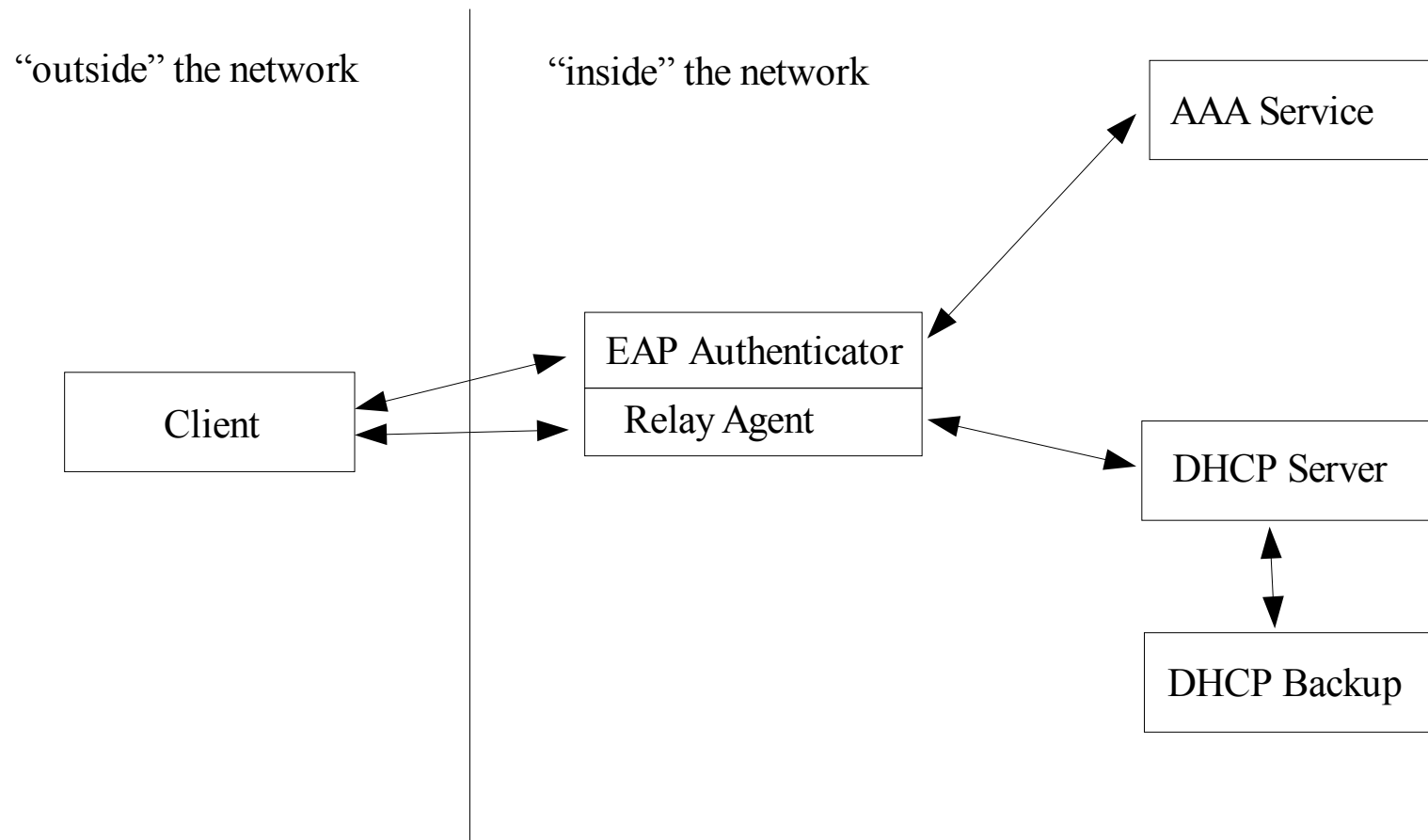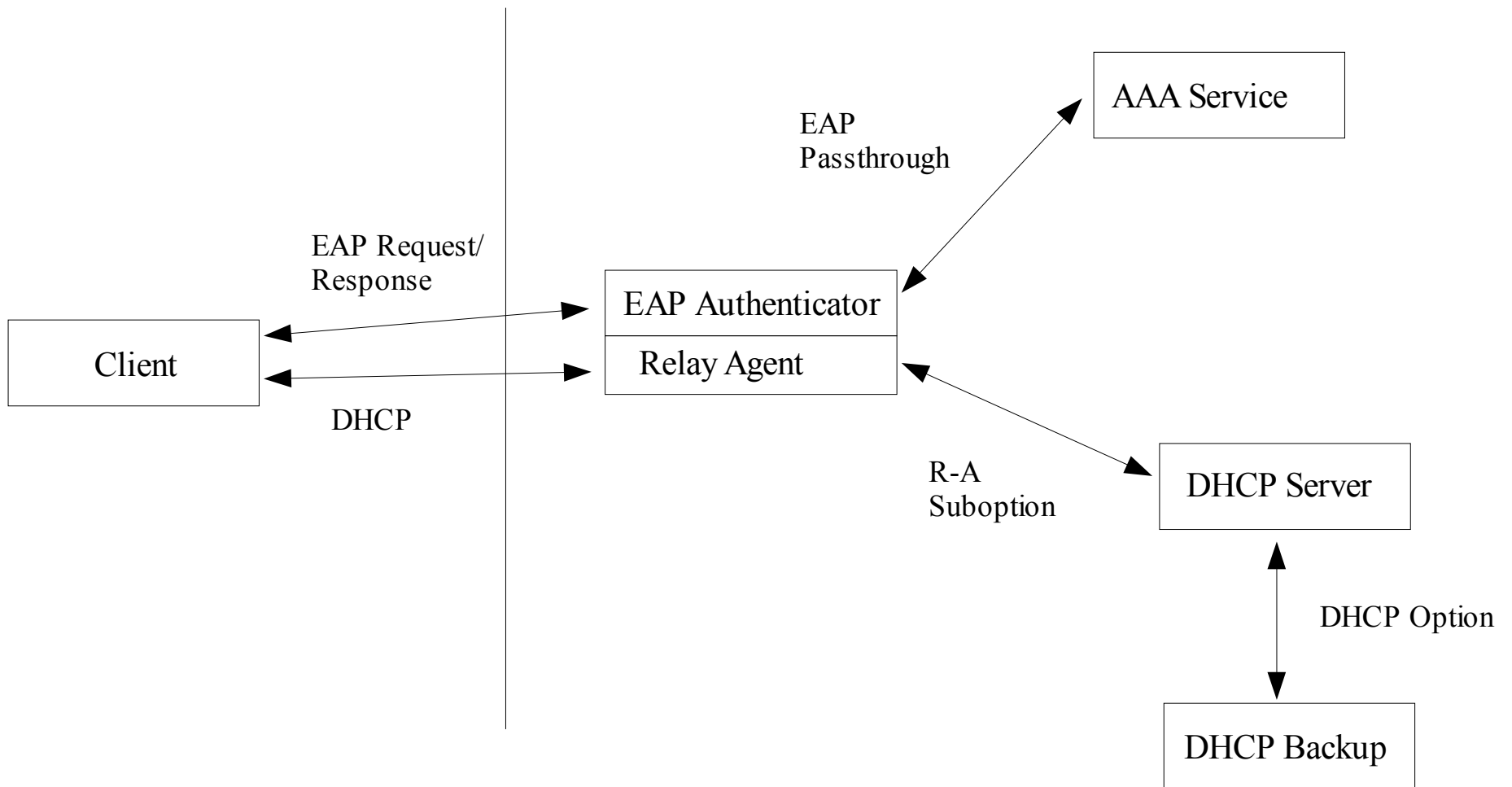# DHCP Authentication Using EAP

- we all like RFC3118, but none of us is using it

- many us are using 802.1x, or another EAP-based form of NAC

  - ... and in order to do so, have credentials provisioned at the AAA server

- can we come up with a way to take advantage of those credentials?

"outside" the network   "inside" the network

Client

EAP Authenticator

Relay Agent

AAA Service

DHCP Server

DHCP Backup

Client

EAP Request/
Response

EAP Authenticator

Relay Agent

DHCP

EAP
Passthrough

AAA Service

R-A
Suboption

DHCP Server

DHCP Option

DHCP Backup

Some problems

- Can the AAA server be extended to generate a DHCP session key?

- Only client and AAA can generate session keys

- How to do key rollover

- Edge cases involving failover

What are the pieces?

- EAP Session-key generation mechanism

- Relay-agent suboption to carry session key

- Failover option to carry ... session key (?)