Diameter NAPT Control Application: Discussion on naming of involved entities

Frank Brockners

Background

- ## Gen-ART review (thanks Miguel Garcia) comments included a comment on naming DNCA-Agent and DNCA-Manager:

  "The draft relies on the roles of a DNCA Manager and a DNCA Agent. I don't understand why these two new roles need to be introduce, when RFC 3588 already provide some roles. In particular I don't see the difference between what you call the DNCA Manager and what RFC 3588 calls a Diameter Server; and I don't see the difference between your DNCA Agent and RFC 3588 Diameter Client. Furthermore, I haven't seen a proper definition of DNCA Manager and DNCA Agent, so, I have my own idea, which basically points to the Diameter Sever and Client I just mentioned.

  The suggestion is to not invent the wheel twice and refer to the terminology in RFC 3588, unless you can prove that this is insufficient."

- ## The WG already briefly discussed the naming issue back at IETF 77

  There was not clear understanding which of the two involved parties should be called the server and which the client

- ## Miguel recommended to re-visit the discussion in the WG:

  Miguel's suggestion: "DNCA manager" -> "DNCA server", "DNCA agent" -> "DNCA client"

  "DNCA Agent" is the entity that requests AAA (hence client) , and "DNCA Manager" performs authorization (autonomous) or performs is on behalf of a AAA-Server (integrated), (hence a server)".

Background:
DNCA deployment variants and current roles

Integrated Deployment

Autonomous Deployment
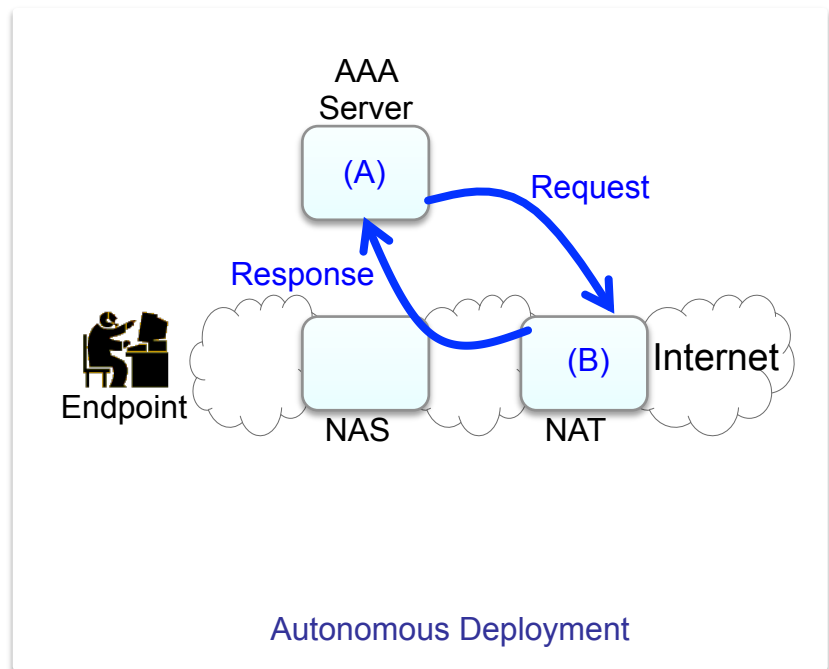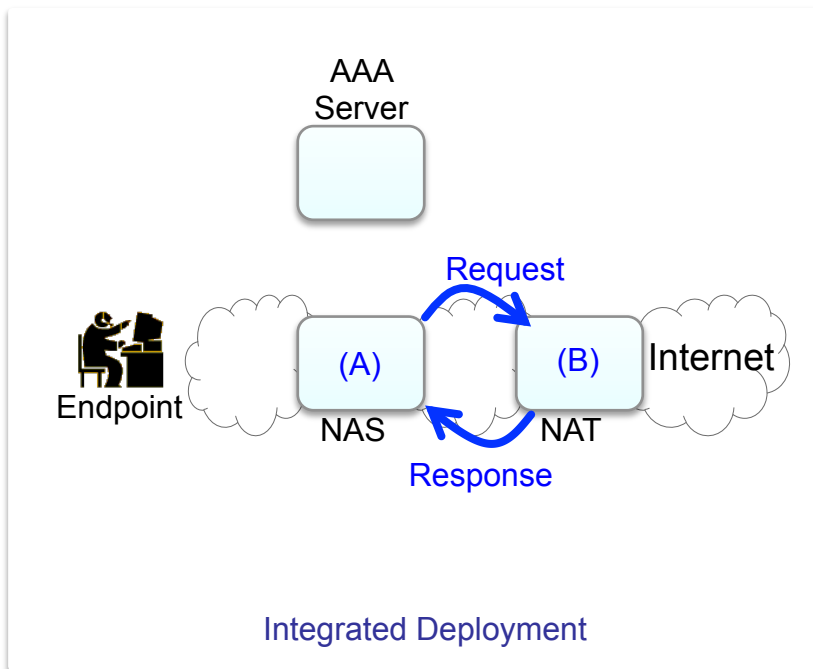
- Current Naming:
  (A) = DNCA Manager, (B) = DNCA Agent

Background:
A quote from RFC 3588

- RFC 3588, section 1.1

  *"…a Diameter Client is a device at the edge of the network that performs access control, such as a Network Access Server (NAS) or a Foreign Agent (FA). **A Diameter client generates Diameter messages to request authentication, authorization, and accounting services for the user**. A Diameter agent is a node that does not authenticate and/or authorize messages locally; agents include proxies, redirects and relay agents. **A Diameter server performs authentication and/or authorization of the user.** A Diameter node MAY act as an agent for certain requests while acting as a server for others."*

Discussion

- Current naming needs to be reconsidered: "DNCA Agent" can be confused with "Diameter Agent"

- Option 1: (A) = DNCA-Server, (B) = DNCA-Client
  - Intuitive for "Autonomous Deployment", because "(A)" would run on a physical server
  - (A) is typically a subscriber-aware device (and hence aligns well with the role of a server), whereas (B) is typically not
  - DNCA procedures would translate to "push-mode" only Diameter deployment

- Option 2: (A) = DNCA-Client, (B) = DNCA-Server
  - Intuitive for "Integrated Deployment", because "(A)" would run on the NAS – corresponds to "*Diameter Client is a device at the edge of the network that performs access control, such as a Network Access Server (NAS) [..]*"
  - (A) sends requests, responded to by (B) – corresponds to "*A Diameter client generates Diameter messages to request [..] authorization [..]*".
  - DNCA procedures would translate to "pull-mode" only Diameter deployment

- Proposal: Option 1 to be adopted in the draft