

Radius mobility extensions draft-gondi-radext-radius-mobility-00.txt

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Overview

- Radius Extensions
- Radius mobility extensions
- Radius Servers communicating each other for mobility context management
- Radius server communicating with the network entities of the access networks (Proxy – MIP)
- Mobility management using the proposed mechanism

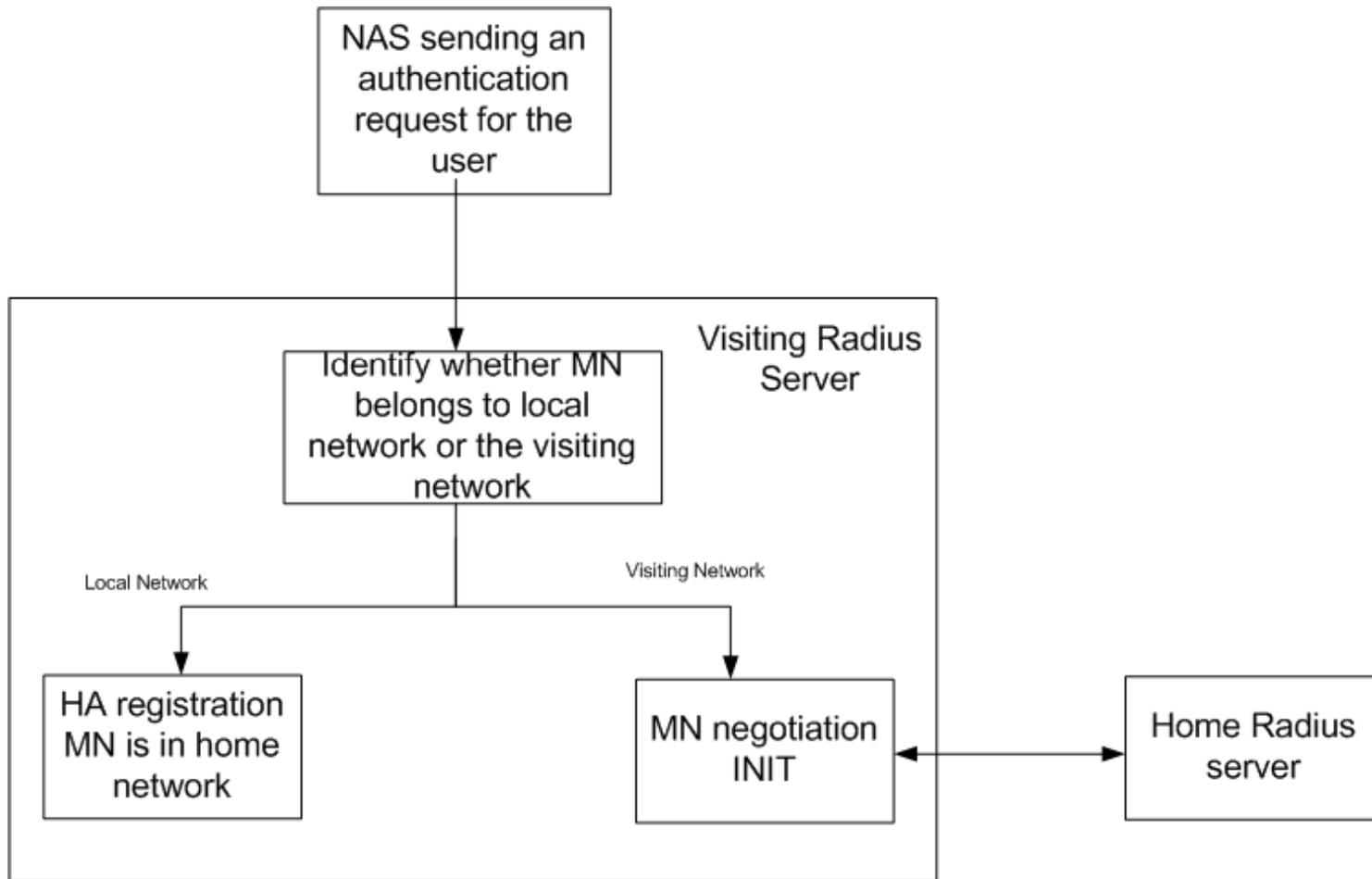
Radius Extensions

- Wide usage of Radius as authentication and accounting server in access networks
- Support for Wireless access networks
- Functionalities of Radius server traditionally restricted to the authentication and accounting
- Studies are on going to extend the functionalities of Radius server for management of user during roaming and mobility addressing to negotiate end to end seamless services to users
- Demand for network centric management of the user terminals

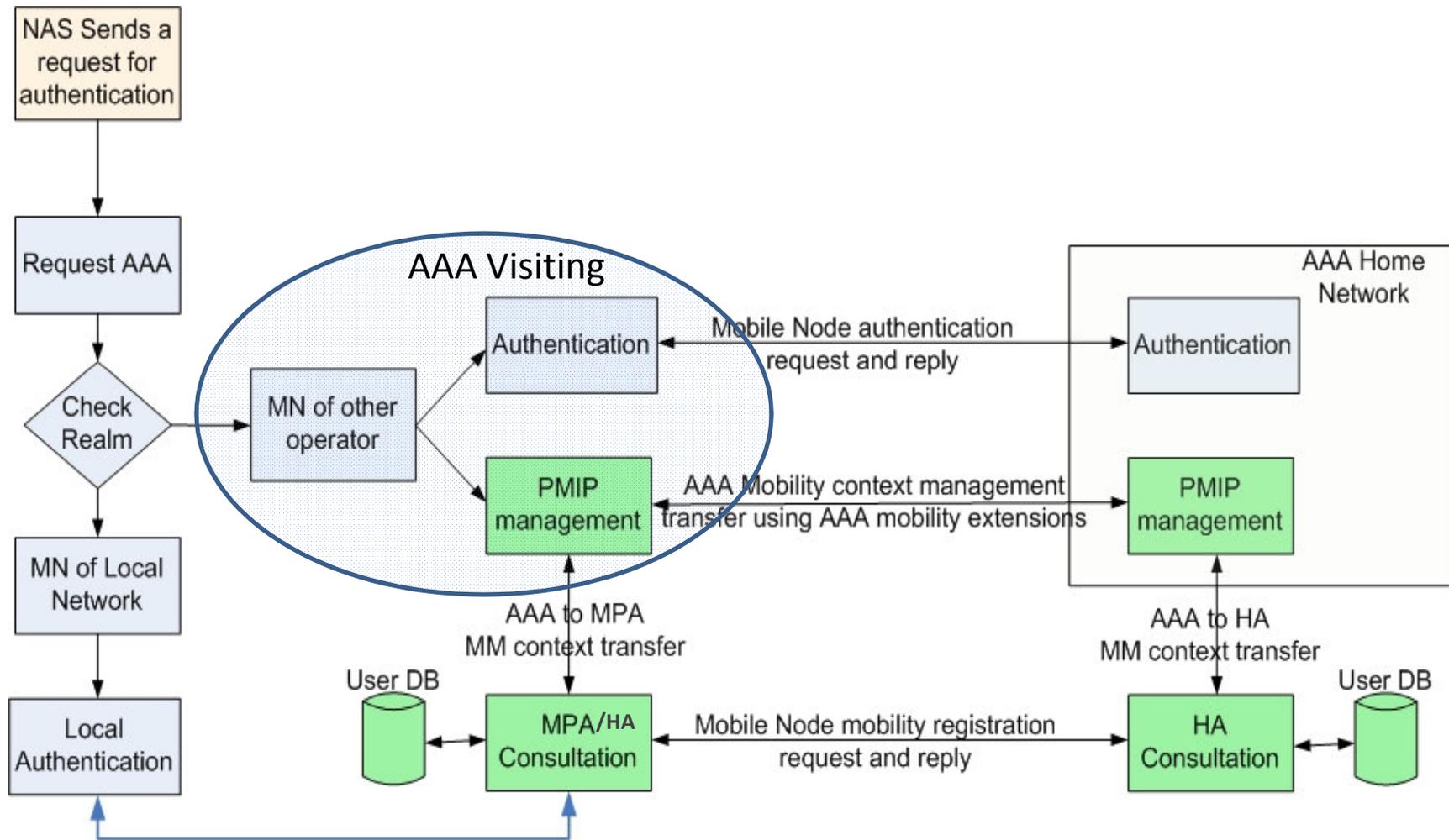
Radius Mobility extensions

- Providing support from the radius server to network entities like the HAs and MPAs to handle the mobility of the users in same and different domains.
- Mobility context support for different administrative domains.
- Identification and decision making for the user mobility in the access networks.
- Collecting the details of the user during authentication through NAS

Radius Server with mobility extensions



Radius Servers with network entities (PMIP)



Open Issues

- Security mechanisms in the architecture
- IANA considerations

Radius Roaming Extensions

draft-gondi-radext-radius-roaming-00.txt

Radius Roaming Extensions

- Radius server support for authentication and accounting in wireless networks
- Extending the functionalities for supporting roaming and seamless handover
- New methods are included to provide network centric handover and roaming management of the User in access networks.
- Interoperable with the existing mechanisms
- Radius servers of access networks communicate each other to provide preemptively support during roaming to users for low latency handovers

Proposed Mechanism for Radius Roaming Extensions

- Collects the details from the user terminal and processing the information inside the radius server
- Involves communicating with the different network entities depending on the process mechanisms
- The processing mechanisms can vary according to the requirements of the networks and operators, but has to obey the message formats.

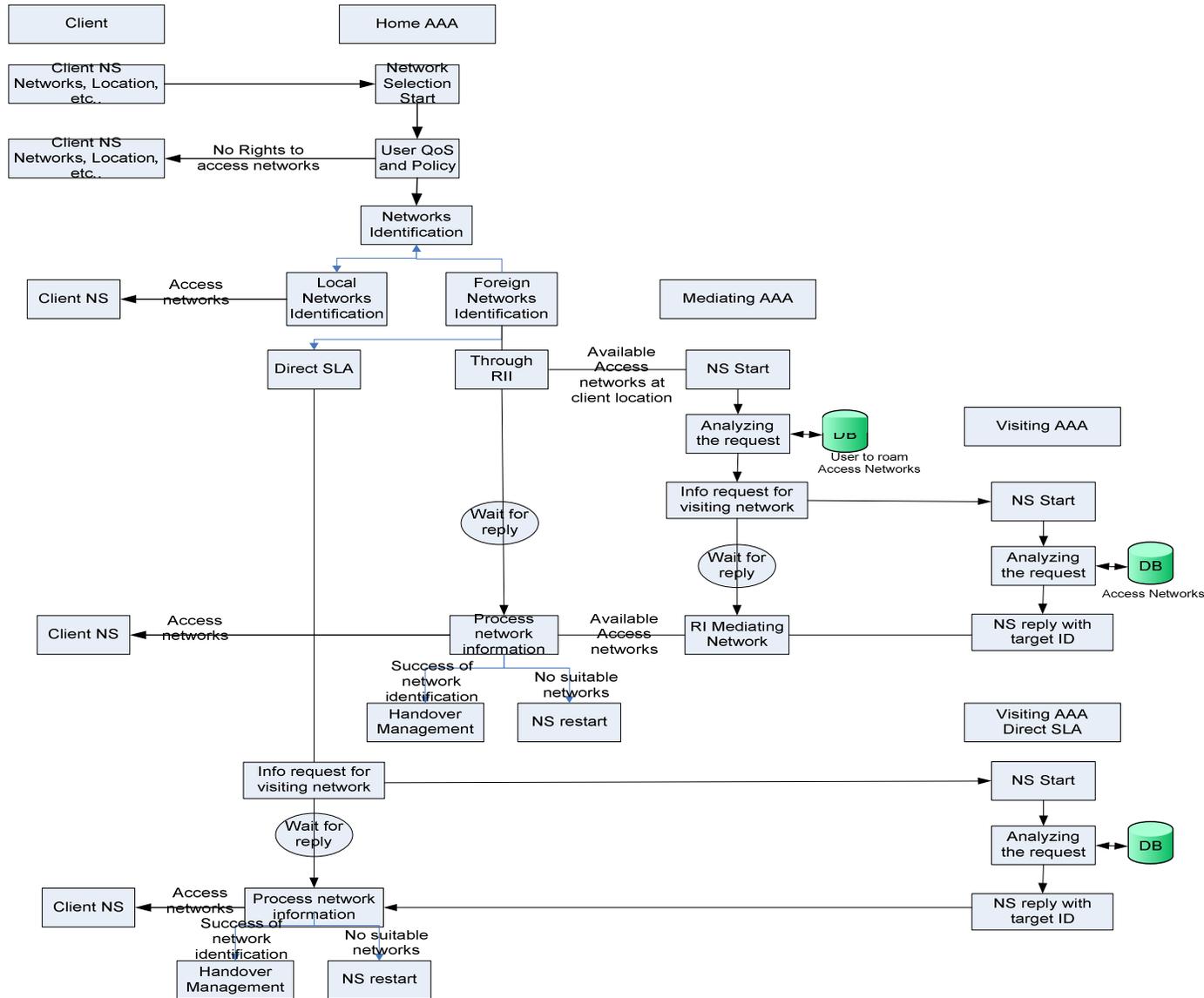
Radius Server Interactions

- Mobile terminal
 - Using layer 2 or 3 user client communicates with the Radius server, sending requests and replies for different mechanisms
 - We have proposed new method using EAP to communicate with the Radius server with different subtypes
- Network Entities
 - NAS and APs
 - HA/MPAs
 - Etc.....
- Other Radius Servers

Radius Roaming Extensions mechanisms

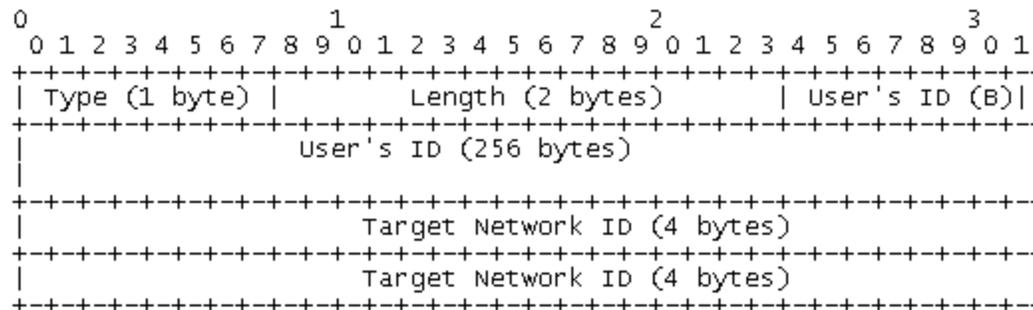
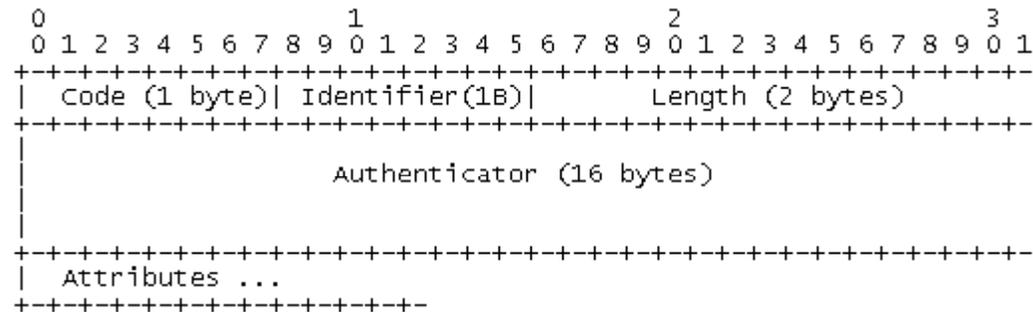
- Network Selection (NS)
- Handover Management (HO)
- Security Context Management (SCM)
- Mobility Context Management (MM)
- Presence and QoS support (PR, QoS)

Network Selection



Protocol Formats and new attributes

- Packet formats format for different mechanisms are proposed
- Codes and Attributes types are proposed
- NS Format



Open Issues

- Security
- Process Mechanism Algorithms(processes)
- Packet Data
- IANA Considerations

Questions and Comments