HMIPv6

Hierarchical Mobile Internet Protocol version 6

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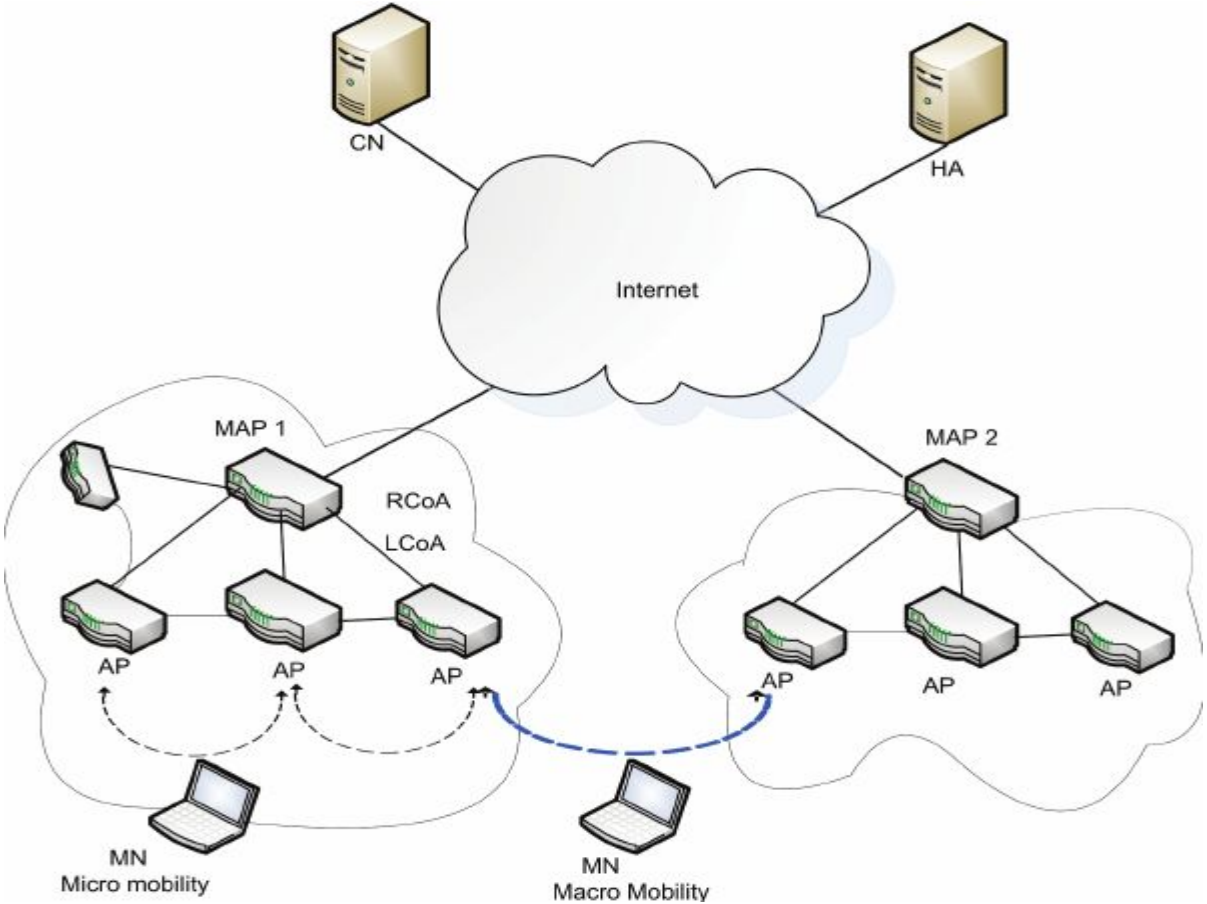
Introduction

Hierarchical Mobile IPv6 (HMIPv6), a key protocol in the realm of mobile networking. In an increasingly interconnected world, seamless mobility and efficient communication are paramount. HMIPv6 stands at the forefront, offering solutions to address the challenges of mobility management in IPv6 networks. Mobile communication has become ubiquitous, with users expecting uninterrupted connectivity as they move between different network domains. Traditional Mobile IPv6 (MIPv6) provided a foundation for mobility management, but it faced scalability and efficiency issues in large-scale deployments.HMIPv6, a protocol designed to enhance the mobility management architecture by introducing hierarchical elements and optimizing handover procedures.

Architecture



Advantages

Security:

MNs can have (limited) location privacy because LCoAs can be hidden.

Efficiency:

Direct routing between CNs sharing the same link is possible.

Disadvantages

Transparency:

Additional infrastructure component(MAP).

Security:

Routing tables are changed based on messages sent by mobile nodes. This requires strong authentication and protection against denial of service attacks. Additional security functions functions might be necessary in MAPs.

Full Forms

- ➔ **CN**- **C**orrespondent **N**ode
- ➔ **HA**- **H**ome **A**gent
- ➔ **RCoA**- **R**egional **C**are **o**f **A**ddress
- ➔ **LCoA**-**L**ink **C**are **o**f **A**ddress
- ➔ **MAP-M**obility **A**nchor **P**oint
- ➔ **AP-A**ccess **P**oint
- ➔ **MN-M**obile **N**ode

Thank You!