



# Dynamic Home Address Assignment

**draft-paulkandasamy-mobileip-nai-based-home-addres-01.txt**

**Naveen Paulkandasamy, Kent Leung**

**65<sup>th</sup> IETF**

**Dallas, Texas USA**

**Mar. 21, 2006**

# [ Background ]

---

- Published in Mar. 2004
- Presented at 60<sup>th</sup> IETF, Aug. 2004
- Updated to version -01, which published in Jan. 2006
  - Removed the concept of Static address authorization and related text
  - Changed the MN-Capability extension to Dynamic-HoA extension

# Problem Statement

Recap



- RFC 2794/3344 contains ambiguities on home address assignment scenarios
  - Mobile node sends a registration request with the NAI extension and non-zero home address
    - Home Agent reject or assign alternative address?
  - Home Agent and the Mobile Node operations for re-registration and deregistration scenarios have not been clearly specified
    - Is the NAI extension mandatory or the home address field allowed to be 0.0.0.0 in the re-registrations and deregistration?

# [ Problem Statement

Recap

]

- Ambiguities continued..
  - What should be the IP Destination Address of the first successful registration reply forwarded by the Foreign Agent to the Mobile Node?
    - RFC3344 Section 3.7.2.3 specifies Home Address in registration reply, which won't work

# Solution Overview

Recap

- When home address field is non-zero, home agent tries to assign the requested address in the registration reply. If requested address is unavailable, an alternative address is assigned in the reply. If no address is available, the request is rejected with new error code

# Solution Overview

Recap



- When home address is 0.0.0.0, home agent tries to assign a new address for the mobile node in the registration reply. If no address is available, the request is rejected with new error code
- New skippable extension to provide backward compatibility
- Initial registration, re-registration, and deregistration scenarios covered

# [WG Discussions]

- Why set different Home Address in Registration Reply?
  - Optimized to avoid another round trip
- Why introduce new extension?
  - Backward compatibility
- Why need new specification?
  - Ambiguity in RFC 2794
- How does existing MN react to new error code?
  - Backward compatibility
- Update RFC 2794 using document (IETF60)?
  - 2794bis needed



## Next Step

Seeking WG decision?

- Working group item
- Input to 2794bis for RFC 2794 to advance to Draft Standard level