

# **Requirements for Addresses Registration**

**draft-jiang-6man-addr-registration-req-01**  
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# Problems and Requirements

- **Host self-generated addresses notionally conflict with the network managed address architecture**
  - Addresses in IPv6 Stateless Address Auto-Configuration [RFC4862, RFC4941] scenario
  - Cryptographically Generated Addresses (CGA, [RFC3972])
- **Many operators of enterprise networks and similarly tightly administered networks have expressed the desire to hold on to network managed address model when moving to IPv6**
  - Networks may reject the access request from host-generated addr
  - Disable host-generated addresses, also SLAAC and CGA
- **Ideal scenario: if the self-generated IPv6 addresses are used, they may need to be registered in and granted by the networking management plate**

# Generic Address Registration Procedure

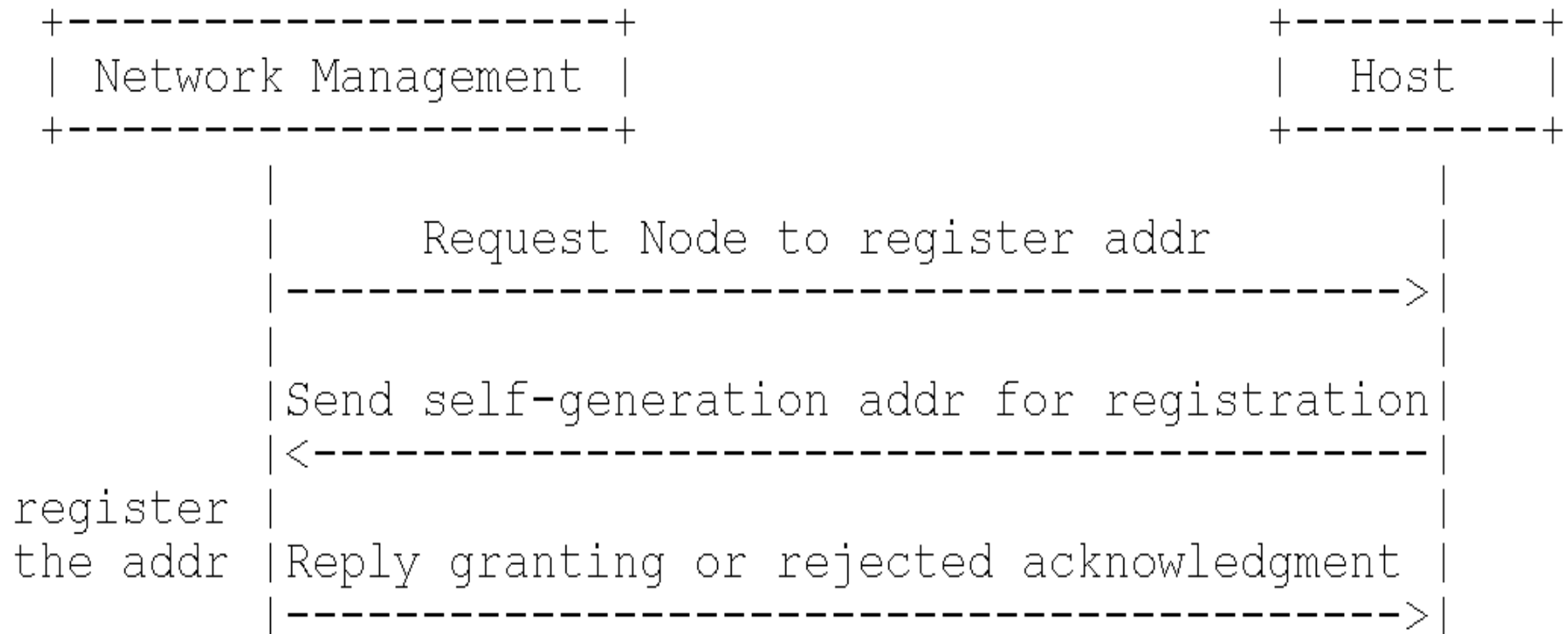


Figure 1: address registration procedure

# Missing Functions & Potential Solutions

- **A new request option needs to propagate the registration request**
  - Choice 1: Router Advertisement
  - Choice 2: DHCPv6
  - May include the default/enforced address registration server
- **Address Registration Server and Protocol**
  - The server checks the acceptance of addresses, holds all registered addresses, and may interact with other network functions, such as DNS or ACL.
  - Choice 1: Using DHCPv6 and DHCPv6 server
    - *The DHC protocol was originally designed to push configuration information from the network management side to the hosts*
  - Choice 2: Defining a new address Registration Protocol
  - [Discussion] Any other existing protocol may be used for address registration purposes?

**Comments are welcomed!**

**Is this requirement real?**

**Should IETF work on it?**

**Thank You!**

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