

# UUID-based DHCPv6 Unique Identifier (DUID-UUID) draft-narten-dhc-duid-uuid-01

Thomas Narten  
[narten@us.ibm.com](mailto:narten@us.ibm.com)  
July 27, 2010  
IETF78 - Maastricht

# Problem

- DHCPv4 has exactly one way to identify client (MAC address plus gaddr field)
  - Server always gets same identifier for device, regardless of OS, multi-stage boot loaders, etc.
- DUID mechanism in DHCPv6 breaks that assumption
  - DHCPv6 defines multiple DUID types and different OSes (or stages of boot loader) may pick different DUID types
- 3 DUID types defined today
  - DUID-LLT - LL address + timestamp
  - DUID-EN - Enterprise Number + additional info
  - DUID-LL - LL address of ONE of devices interfaces
- Even if same DUID type is used, actual value might change
- For a class of provisioning approaches, it is highly desirable that all uses of the DHCP on the device use the same identifier

# DUID-UUID

- New DUID type, contains embedded UUID
  - UUIDs widely used today in many settings
  - Not all UUIDs make sense for DHC (not stable enough, etc.)
  - However, all x86 firmware includes a UUID
    - Assigned at factory
    - Doesn't change across system reboots, etc.
    - OS and boot-stage can easily use same DUID
  - Other hardware types probably also have such a UUID
- Would provide a constant & stable DUID that all DHC instances on a given device could use
- Only solves half the problem; it is a separate issue to get all DHCPv6 clients to use a particular UUID
  - Solving the latter problem is out-of-scope for WG, but will be pursued elsewhere (e.g., UEFI forum)

# Next Steps

- Any concerns or issues to the concept/idea?
- Take on as a WG item?
- Put on Standards Track?
- Expectation: send to IESG relatively quickly
  - Meat of draft is only 3 pages

Questions/Comments?