Detecting Network Attachment (DNA) BoF

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DNA Introduction

- Network attachment occurs when a host arrives on a new network
- Detect if acquired link instance is new, or has existing valid configuration
- Timely indication for existing sessions
- Hosts can determine if configuration should be initiated

BoF WWW Page and Mailing list archive:

- http://www.ctie.monash.edu.au/dna/

Agenda

- Introduction/Agenda Bash (5 Min - Chair):
- Problem Description/Existing work (40 Min):
  - Movement Detection in Mobileip (JinHyeock Choi)
  - Address confirmation in DHCPv6 (GD)
  - Link Detection in zeroconf and DHCPv4 (Bernard Aboba)
  - discussion

Agenda (Continued)

- Issues (40 Min):
  - Link Triggers (Alper Yegin)
  - optimized DAD (YounHee Han)
  - Discussion: Common ground - Mobileip, IPv6, zeroconf and DHCP
  - Discussion: ’v6 only’ or ’v6 and v4’
- Interest and Focus (15 Min - Chair):
  - Work Plan Proposal
  - Interest in WG Formation

Movement Detection in Mobile IPv6

Presenter: JinHyeock Choi

Address Confirmation in DHCPv6

Presenter: Randy Bush

Link Detection in zeroconf and DHCPv4

Presenter: Bernard Aboba

Discussion of Existing work

Link Triggers

Presenter: Alper Yegin

DAD Optimizations

Presenter: YounHee Han

Common ground - Mobileip, IPv6, zeroconf and DHCP

Which basic technologies are relevant across access networks in v4 and v6?

- DHCPv4?
- ARP?
- v4 Router Advertisement?
- IPv6 Router/Neighbor Discovery?
- DHCPv6?
- Stateless Address Autoconfiguration (& DAD) ?

’v6 only’ or ’v6 and v4’

- Possibility that Techniques for v4 and v6 DNA are different
- Is there interest in pursuing v4 DNA alongside v6?

Work Plan Proposal (1)

- Define Terminology (or find a document which does, goal: info)
  - by IETF 58
- Define IPv6 DNA Problem Scope (goal: info)
  - by IETF 58
- Define IPv6 DNA Requirements (goal: info)
  - by IETF 59 (waits on scope6, terminology)
- Define IPv6 Basic DNA specification (goal: PS)
  - initial version by IETF 59 (waits on reqs6)

- Define IPv6 Optimized DNA procedures (goal: Exptl/PS)
  - initial version by IETF 60 (waits on reqs6, basic6)

Work Plan Proposal (2)

- Define IPv4 DNA Problem Scope (goal: info)
  - by IETF 58/59 (waits on recommend)
- Define IPv4 DNA Requirements (goal: info)
  - by IETF 58/59 (waits on recommend, scope4, term)
- Define IPv4 Basic DNA specification (goal: PS)
  - initial version by IETF 59/60 (waits on req4)
- Investigate DNA IPv4 optimizations, indicate feasability
  - by IETF 59/60 (waits on basic4, req4)

- Define IPv4 Optimized DNA procedures (goal: Exptl/PS) o initial version by IETF 60/61 (waits on optfeas, basic4)

Work Plan Proposal (3)

- Investigate DAD optimizations for IPv6, Determine Problem scope (goal: info)
  - By IETF 58
- Determine IPv6 DAD optimization Requirements (goal: info)
  - By IETF 58/59 (waits on DADscope, term)
- Define DAD opt specification (goal: PS/upd 2462 or dhcpv6).
  - initial version By IETF 59/60 (waits on DADreq)

Interest in WG Formation

- Sense of the room?
- Chairs?