Report on TAHI test suite

65th IETF@Dallas

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TAHI Project

TOC
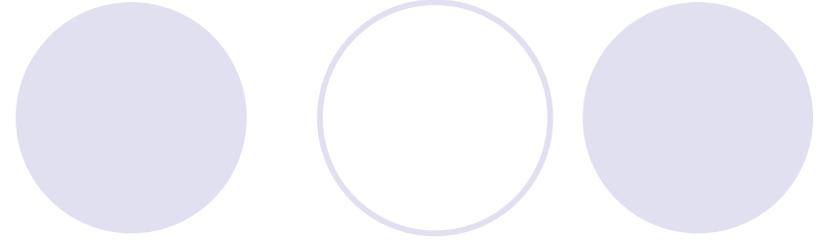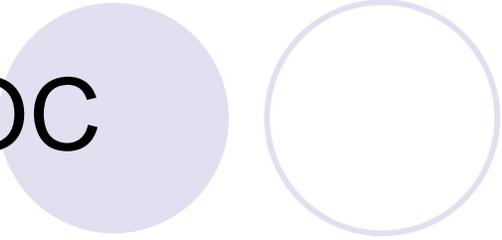
- Tester Status
- Testing Report

# Tester Status
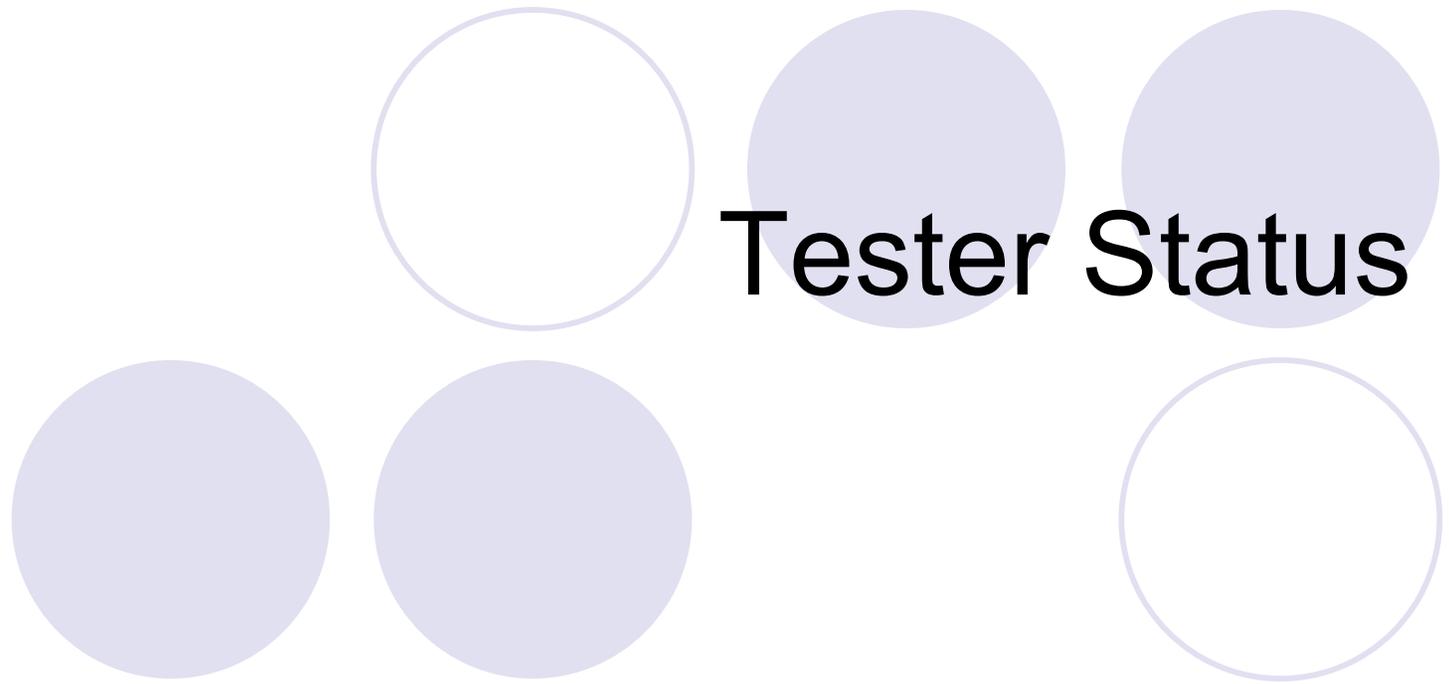
New release of TAHI DHCPv6 Test Tool

- TAHI Project will release DHCPv6 Test Tool version 1.0 (Apr, 1st , 2006) !!
  - including functions related to "Authentication".

- Test Target
  - Server
  - Relay Agent
  - Client

Virtual Test Topology

Client

Relay Agent

Server
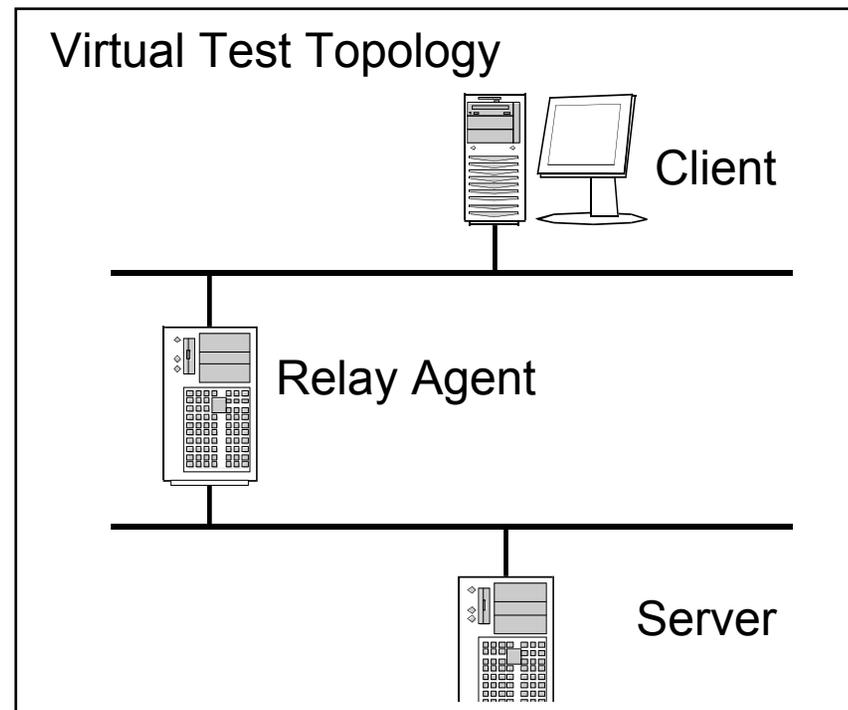
Test Coverage

RFC3315	Dynamic Host Configuration Protocol for IPv6 (DHCPv6)
RFC3633	IPv6 Prefix Options for Dynamic Host Configuration Protocol (DHCP) version 6
RFC3646	DNS Configuration options for Dynamic Host Configuration Protocol for IPv6 (DHCPv6)
RFC3736	Stateless Dynamic Host Configuration Protocol (DHCP) Service for IPv6

Focus on "Authentication" function

- Delayed Authentication Protocol
  - Already developed
- Reconfigure Key Authentication Protocol
  - Now, developing
  - This protocol is unclear for us...

Let's discuss at
- DHC WG ML (dhcwg@ietf.org)
- TAHI dhcpv6 ML (dhcptest@tahi.org)
   Subscribe to : dhcp-ctl@tahi.org
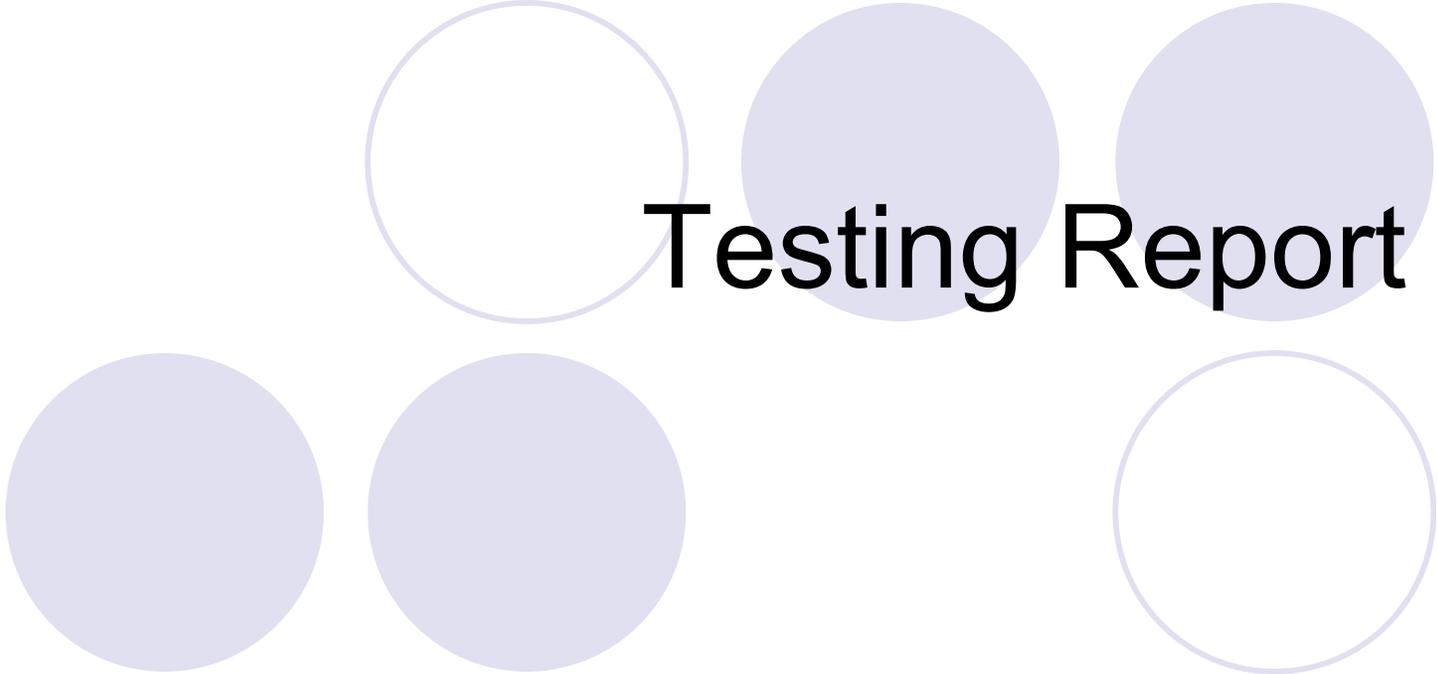
Testing Report

Test report on 8th TAHI test event
(23th – 27th January, 2006, Chiba, Japan)

- ## Conformance Test
  - ○ 5 implementations were tested.
    - 2 Servers and 3 Clients
  - ○ Found some bugs in both Tester and Implementations.
  - ○ Discussed some issues in RFCs.
- ## Interoperability Test
  - ○ 6 venders participated.
    - 4 Servers, 5 Clients and 2 Relays
  - ○ Found some bugs

Issue(1/3)

- How to treat invalid option that does not influence interoperability ?

  RFC says ： "Clients and servers SHOULD discard any messages that contain options that are not allowed to appear in the received message. "

  ISSUE : Most implementations ignore only such option rather than discarding the entire message.

  Opinion ： from Bernie Volz

  1. Servers are usually designed for performance.

  2. It doesn't cause an issue of interoperability.

  3. If new option is defined, it requires constant maintenance.

  Now, our test tool follows the RFC.

  Which behavior is correct?

Issue(2/3)

- Where is the correct position of NotOnLink Status Code option (For REPLY to a REQUEST)?

  RFC says : "the server MUST return the IA to the client with a Status Code option with the value NotOnLink."

  ISSUE : The word "with" is unclear. Some implementations include this option in main part of message, some others in IA_* option or IA_address option.

  Opinion : from Bernie Volz

  For REPLY to a REQUEST, it should be in IA_*option.

  Can it be consensus?

  *NoAddrAvail and NoPrefixAvail etc... are clear.

  *But there are some more status code which is not clear

  (I will send these descriptions to ML).

Issue(3/3)

- Is the coexistence of Success and NoBinding Status Code option in REPLY to a RENEW acceptable?

  RFC says ： no description

  ISSUE : Some implementations include Success Status Code option in main part of message and include NoBinding Status Code option in IA option.

  Opinion ： from Bernie Volz

  Acceptable. The Success Status Code option in the outer part of the message is really of no interest (ie, IGNORE IT!).

  What is the meaning of Success Status Code?

Check this!!

All of information is available on

http://www.tahi.org/dhcpv6/

END
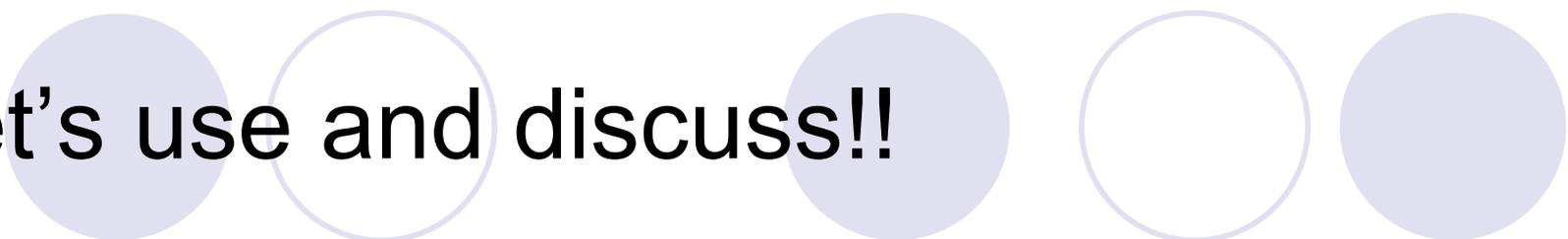
Let's use and discuss!!

- **Test specification**
  - Available on http://www.tahi.org/dhcpv6/spec/
- **Test tool**
  - Available on http://www.tahi.org/dhcpv6/
  - You can download Test Tool freely!!

- **Mailing list for discussion**
  - Discussion : dhcptest@tahi.org
  - Subscribe to : dhcp-ctl@tahi.org
  - Your comments to improve test tool and specification are welcome !!
  - Your feedback is welcome.