Mobile IPv6 Internet Testing

Connectathon 2003

Interoperability Testing event

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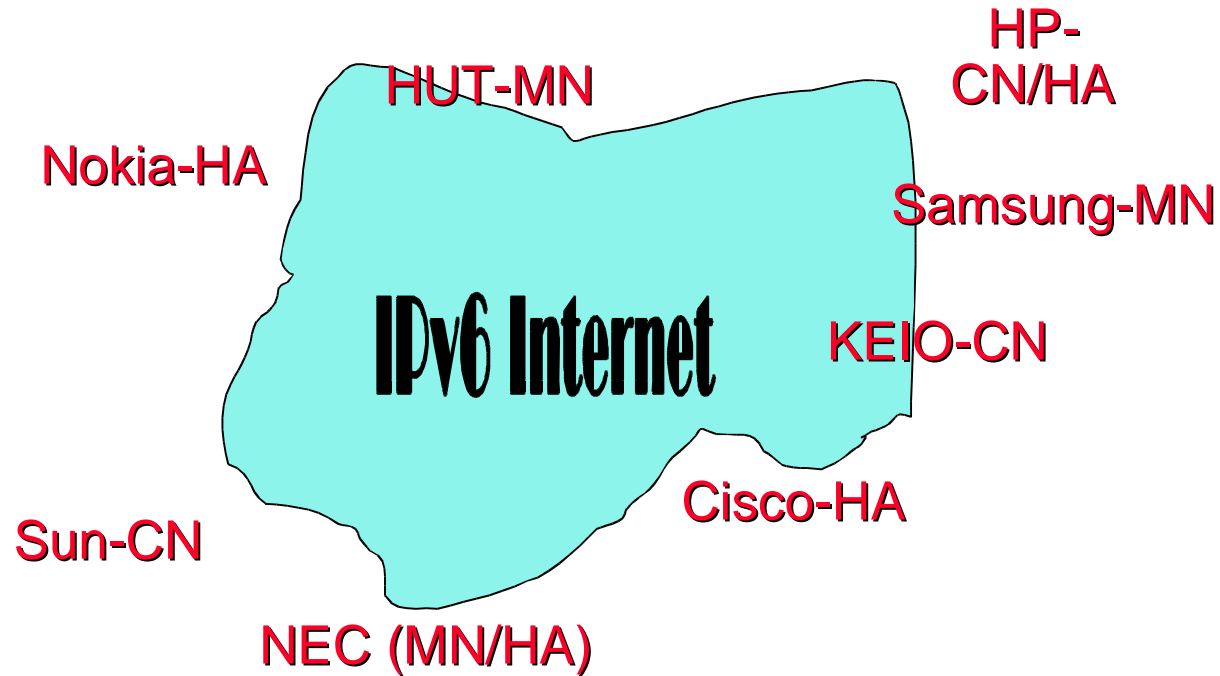**Samita.chakrabarti@Sun.com**

IPv6 Internet Testing Idea

How about a MIPv6 Interop Test bed on IPv6 Internet?

Advantage:

- Continuous testing among different implementations

- Faster progress towards mature MIPv6 base protocol

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IPv6 Internet Test Example

HP-
CN/HA

HUT-MN

Nokia-HA

Samsung-MN

IPv6 Internet

KEIO-CN

Cisco-HA

Sun-CN

NEC (MN/HA)

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IPv6 Internet Testing Idea

How ?

- Each company gets its own IPv6 prefix on the internet

- A MIPv6 representative is responsible for that implementor's machine and administration of prefixes

- A common web-page administrator who updates information about each company's MIPv6 type of implementation and its addresses etc.

- MN implementations need to get home addresses from different HAs

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IPv6 Internet Testing Idea

A common web-page for MIPv6 internet testing

Example:

3ff4::abc	Implement1-MN
3ff4::def	Implemnet1-HA
3ff4::aaa	Implement2-MN
3ff5::bab	Implement2-CN
3ff2::a235	Implement3-CN
3ff4::a456	Implement3-MN

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IPv6 Internet Test Idea (example)

Implement1

3ff4::def/64

HA

MN 3ff4::abc/64

Implement2

MN   3ff4::aaa (Home addr)

IPv6 Internet

3ffe::aaa/64 (COA)

Implement3

CN   3ff2::a235/64
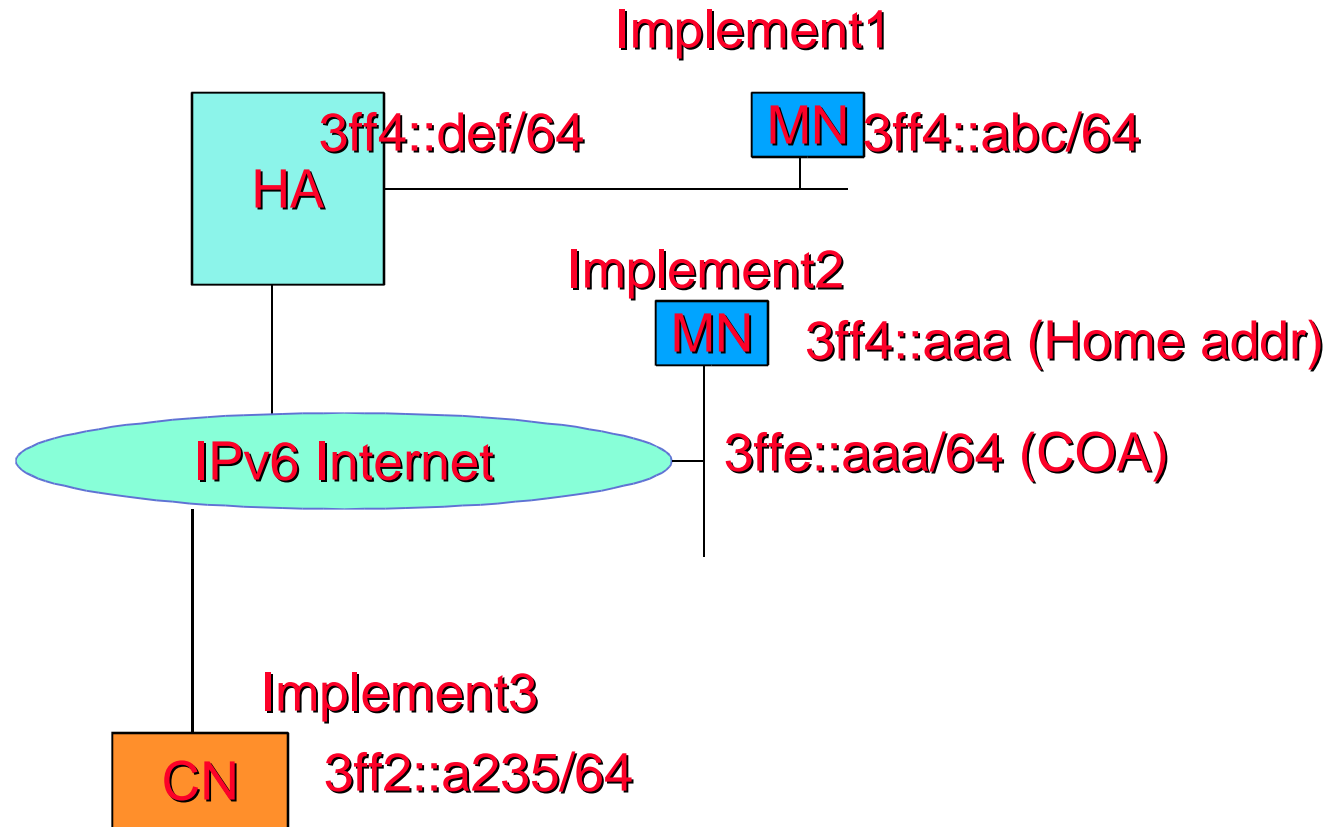
Implement2 gets a home address from implement1

IPv6 Internet Testing Idea

How to test ?

- Look up the MIPv6 Internet Test Webpage

- Find a HA addr and find address for your implementation MN (pre-allocated by the HA representative)

- Start a session with a CN in the IPv6 internet while MN is at home, then move the MN to the IPv6 internet and start communicating with the CN (with or without route optimization)

- Select a HA in the IPv6 Internet, then the MN can simply pretend it's visiting on a IPv6 internet subnets and it sends BU to HA and then to CN for Route optimization

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IPv6 Internet Testing Idea

What Apps for testing?

- ping

- telnet

- ftp

- Any other suggestion?

Time Frame and resource ?

- May be 6-12 months from now …

- A volunteer needed for Common MIPv6 webpage update

- Participating implementations need to dedicate machines for testing

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IPv6 Internet Testing Idea

Comments ?

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