Appendix A

for "IPv6 Ready Logo"

Phase-1/2

Ver. 1.9

Modification Record

Version 1.9 Feb. 12, 2008

- Merge with Phase1.
- Use RFC 3849 IPv6 address prefixes.
- Update filename syntax.
- Update filename example.

Version 1.8 May 12, 2005

- Support short file name syntax.
- Remove info file description.
- Describe sample in detail.

Version 1.7 Jan. 05, 2005

- Command log is required for all case.

Version 1.6 Nov. 18, 2004

- add address list description

Version 1.5 Nov. 17, 2004

- Clarified sections 1.1.A and 1.1.D

Version 1.4 Nov. 12, 2004

- Add clarification based on comments

Version 1.3 Nov. 09, 2004

- Clarify results format

Version 1.1 Nov. 04, 2004

- Improving the description

Version 1.0 Oct. 08, 2004

- Initial version.

1. Required Data for IPv6 Ready Logo Phase-1/2

To obtain the IPv6 Ready Logo Phase-1/2, you need to send application with the test results attached.
The test results must include both Protocol Operations and Interoperability.
In this document, the **"Interoperability test"** result documentation is described.

There are currently two viable alternatives to obtain an interoperability results.

- Lab Test: Test results observed at a lab that is recognized by the IPv6 Ready Logo Committee.
- Self Test: Test results observed by the applicant company in their laboratory.

1.1. Test Data

As "IPv6 Ready Logo Phase-1/2" the following interoperability test result data are required.

A) Topology map (Required)

Network topology figures or address list for each topology, with IPv6 addresses and MAC address of each attached interfaces, are required.

Fig.1 is an example of topology figure.

Fig. 2 is an example of address list.

All IP addresses which are used during the test must be declared.

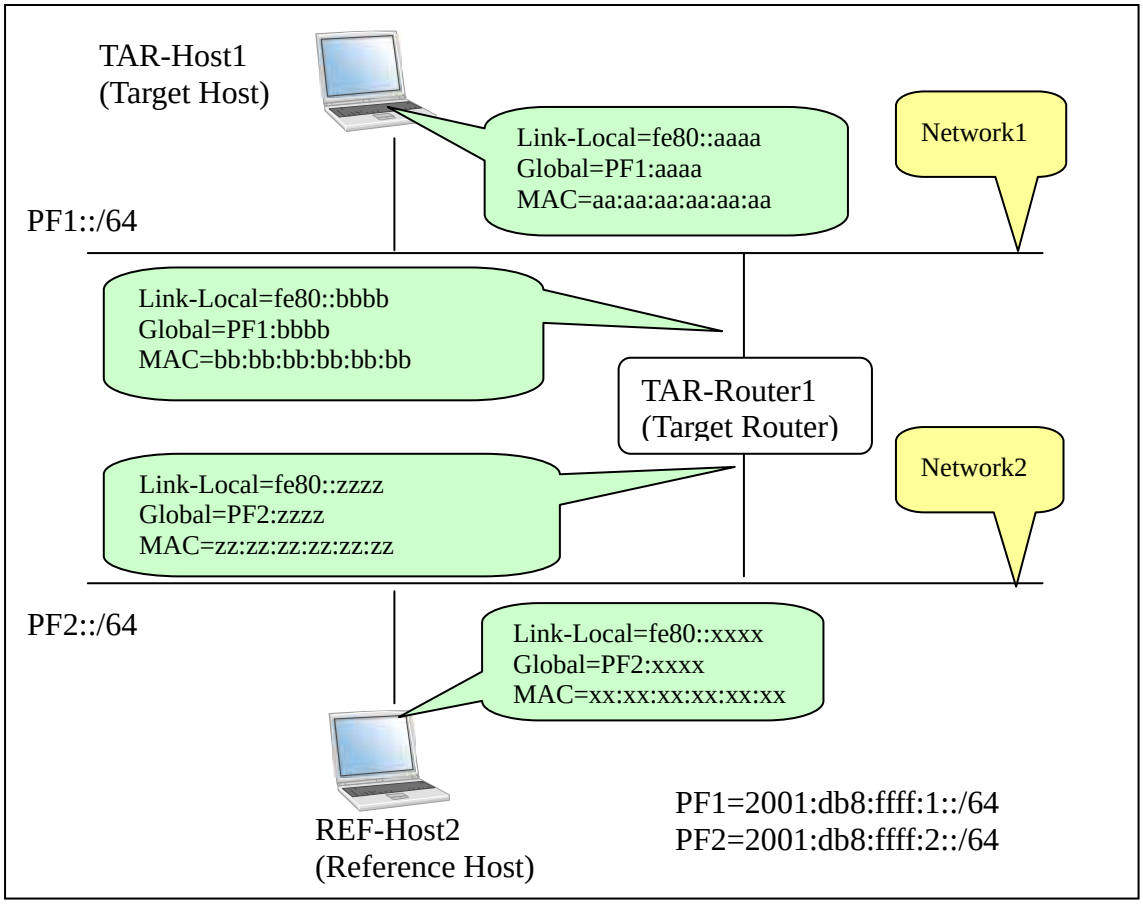

Fig. 1 Topology map example

TAR-Host1:
Link-Local=fe80::aaaa
Global=PF1::aaaa
MAC=aa:aa:aa:aa:aa:aa
TAR-Router1 [Network1]:
Link-Local=fe80::bbbb
Global=PF1::bbbb
MAC=bb:bb:bb:bb:bb:bb
TAR-Router1 [Network2]:
Link-Local=fe80::zzzz
Global=PF2::zzzz
MAC=zz:zz:zz:zz:zz:zz
REF-Host2:
Link-Local=fe80::xxxx
Global=PF2::xxxx
MAC=xx:xx:xx:xx:xx:xx

Fig. 2 Address List example

B) Command Log (Required)

Save the command files for each test on each node.

C) Packet Capture File (Required)

Capture all packets on each link during the test with a device that is not part of the test.

For each part of test put the captured packet into individual files within tcpdump (pcap) format, or readable HTML format.

If you run tcpdump, please specify packet size as 4096.

e.g.,) tcpdump -i if0 -s 4096 -w 1.1.A.VendorA.VendorB.Network1.dump

D) Test Result Table (Required)

Collect all test result tables in a file and fill the tables as required. This file must contain a table where all passes are clearly marked.

1.2. Data file name syntax

Please use following syntax in the file name.

A) Topology Map (Required)

Syntax: *Chapter.Parts.ON.topology*

For "ON", use the vendor name of the Node which behaved as a Opposite side target Node (ON).

e.g.,)

If your device is a host, the name should be like following.

ON: Host [vendor: VendorA, model: rHost1, version: 1.0]

ON: Router [vendor: VendorC, model: rRouter1, version: 3.0]

1.1.ABC.VendorA.topology

1.1.DEF.VendorC.topology

If your device is a router, the name should be like following.

ON: Host [vendor: VendorA, model: rHost1, version: 1.0]

ON: Router [vendor: VendorC, model: rRouter1, version: 3.0]

1.1.DEF.VendorA.topology

1.1.GHI.VendorC.topology

B) Command Results (Required)

Syntax: *Chapter.Section.Part.SRC.DSTs.result*

For "SRC", use the vendor name of the node on which the commands were run.

If "SRC" is a Reference Host, just specify as REF as "SRC".

For "DSTs", use the vendor name of the node to which the commands were run, in other word, destination of ping command.

If the "DSTs" is specific address (like multicast), you should list the vendor names of Target Devices excluding the device on which the command was run.

When you list the Target devices as "DSTs", you need to care the order.
For more detail about order, please refer the examples below.
e.g.,)
Typical Naming sample are hereafter.
TAR-Host1: Host [vendor: VendorA, model: rHost1, version: 1.0]
TAR-Host2: Host [vendor: VendorB, model: rHost2, version: 2.0]
TAR-Router1: Router [vendor: VendorC, model: rRouter1, version: 3.0]
TAR-Router2: Router [vendor: VendorD, model: rRouter2, version: 4.0]

1.1. ICMP Echo Interoperability

1.1.A.VendorA.VendorB.result (for step 1-2)
1.1.A.VendorB.VendorA.result (for step 3-4)
1.1.B.VendorA.VendorB.result (for step 5-6)
1.1.B.VendorB.VendorA.result (for step 7-8)
1.1.C.VendorA.VendorB.result (from VendorA to ff02::1)
1.1.C.VendorB.VendorA.result (from VendorB to ff02::1)
1.1.D.VendorA.VendorC.result (for step 14-15)
1.1.D.VendorC.VendorA.result (for step 16-17)
1.1.E.VendorA.VendorC.result (for step 18-19)
1.1.E.VendorC.VendorA.result (for step 20-21)
1.1.F.VendorA.VendorC.result (from VendorA to ff02::1, ff02::2)
1.1.F.VendorC.VendorA.result (from VendorC to ff02::1, ff02::2)
1.1.G.VendorC.VendorD.result (for step 27-28)
1.1.G.VendorD.VendorC.result (for step 29-30)
1.1.H.VendorC.VendorD.result (for step 31-32)
1.1.H.VendorD.VendorC.result (for step 33-34)
1.1.I.VendorC.VendorD.result (from VendorC to ff02::1, ff02::2)
1.1.I.VendorD.VendorC.result (from VendorD to ff02::1, ff02::2)

1.2. Address Autoconfiguration and Duplicate Address Detection

In part B, D and F please list both Target Devices,
and use the booting order as listing order of "DSTs" devices.

1.2.A.REF.VendorA.result

1.2.A.REF.VendorB.result

1.2.B.REF.VendorB.VendorA.result (for step 8-13)

1.2.B.REF.VendorA.VendorB.result (for step 14-19)

1.3. Processing Router Advertisements-Prefix Discovery

1.3.A.REF.VendorA.result

1.3.B.REF.VendorA.result

1.3.C.REF.VendorA.result

1.4. Processing Router Advertisements-Prefix Discovery

1.4.REF.VendorA.result

1.5. Redirect Function

1.5.REF.VendorA.result

1.6. Path MTU Discovery and Fragmentation

1.6.A.REF.VendorA.result

1.6.B.REF.VendorC.result

1.6.C.VendorA.VendorB.result (for step 9-11, 14-15)

1.6.C.VendorB.VendorA.result (for step 12-13, 16-17)

1.6.D.VendorC.VendorA.result (for step 18-20)

1.6.D.VendorA.VendorC.result (for step 21-22)

1.6.E.VendorC.VendorD.result (for step 23-25)

1.6.E.VendorD.VendorC.result (for step 26-27)

1.7. Routing Header Processing

In part A and B please list both Target Devices,
and use the order in which packet goes through
as listing order of "DSTs" devices.

1.7.A.REF.VendorC.VendorA.result (for step 1-2)

1.7.B.REF.VendorC.VendorD.result (for step 3-4, 7-8)

1.7.B.REF.VendorD.VendorC.result (for step 5-6, 9-10)

C) Captured packet file (Required)

Syntax: *Chapter.Section.Part.Target_Node.Target_Node.Link.dump*

For "*Link*", use the captured link name.

For "*Target_Node*", use Vendor Name of Target Device. Vendor name for Host must be prior to the Vendor name of Router.

e.g.,)

1.1. ICMP Echo Interoperability

1.1.A.VendorA.VendorB.Network1.dump

1.2. Address Autoconfiguration and Duplicate Address Detection

1.2.A.VendorA.VendorB.Network1.dump

D) Test Result Table (Required)

Syntax: *Target_Node.table*

In this file you should make table for each part.

Your device can be described hereafter as a sample whether it is a host or a router.

TargetNode: Node [vendor: VendorX, model: rNode1, version: 1.0]

For Host vs. Host tests, following table is required.

	VendorX	VendorA	VendorB
VendorX			
VendorA			
VendorB			

For Host vs. Router tests, following table is required. (If your device is a Host)

	VendorC	VendorD

VendorX		

For Host vs. Router tests, following table is required. (If your device is a Router)

	VendorA	VendorB
VendorX		

For Router vs. Router tests, following table is required.

	VendorX	VendorC	VendorD
VendorX			
VendorC			
VendorD			

e.g.,)

Test result of following host.

TAR-Host1: Host [vendor: VendorX, model: rHost1, version: 1.0]

or

Test result of following router.

TAR-Router1: Host [vendor: VendorX, model: rRouter1, version: 1.0]

VendorX.table

1.3. Data file name syntax

A) Test result table

Test result tablOne report that references the vendor name and version number is required.

The report shall be in clear readable format with technical explanations of the test procedures and a simple summary of failures in the cover page.

B) Test Packet Captures

Please refer to Section 1.1.C.

1.4. Data Archive

Please organize your data as following directory structure.

```
${Your_Device_ver}/
        Conformance/
        Interoperability/
```

Put all interoperability data file in "Interoperability" directory.
Put all Conformance Self-Test results or Conformance Lab test results
in "Conformance" directory.
Make a tar.gz format archive file, and put files under "${Your_Device_ver}" in it.

1.5. Network Traffic Application

In the test results, "ping" is the default application to send ICMP echo request.
If the target device does not have "ping" application,
it is possible to use any other application that behaves like the "ping" application
and passes traffic through the network.