IPv6 Testing Service

Address Architecture
Conformance Test Plan

Technical Document

Version 3.2

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Introduction

The University of New Hampshire's InterOperability Laboratory (IOL) is an institution designed to improve the interoperability of standards based products by providing an environment where a product can be tested against other implementations of a standard. This suite of tests has been developed to help implementers evaluate the functionality of their products that support IPv6 Address Architecture. This test suite has been designed to test the conformance of the device under test with the specification in RFC 4291, 4193, 4007, 3879, 6724, 7608, and 6164. Successful completion of all tests contained in this suite does not guarantee that the tested device will operate with other devices that implement IPv6 Address Architecture. However, these tests provide a reasonable level of confidence that the Node Under Test will function well in most multi-vendor environments with this implementation.

Definitions

DAD	Duplicate Address Detection (DAD)
DHCPv6	Dynamic Host Configuration Protocol for IPv6
NS	Neighbor Solicitation
ICMP	Internet Control Messaging Protocol
DUT	Device Under Test
RUT	Router Under Test
TN	Test Node
TR	Test Router

Test Organization

This document organizes tests by group based on related test methodology or goals. Each group begins with a brief set of comments pertaining to all tests within that group. This is followed by a series of description blocks; each block describes a single test. The format of the description block is as follows:

Test Label	The **Test Label** is the first line of the test page. It will have the following form: IP.IOP.A.B Where each component indicates the following: IP – Test Suite Identifier IOP – Interoperability Test Suite A – Group Number B – Test Number Scripts implementing this test suite should follow this convention, and may also append a character in the set [a-z] indicating a particular test part.
Purpose	The **Purpose** is a short statement describing what the test attempts to achieve. It is usually phrased as a simple assertion of the feature or capability to be tested.
References	The **References** section lists cross-references to the specifications and documentation that might be helpful in understanding and evaluating the test and results
Test Setup	The **Test Setup** section describes the configuration of all devices prior to the start of the test. Different parts of the procedure may involve configuration steps that deviate from what is given in the test setup. If a value is not provided for a protocol parameter, then the protocol's default is used for that parameter.
Procedure and Expected Behavior	The **Procedure and Expected Behavior** table contains the step-by-step instructions for carrying out the test. These steps include such things as enabling interfaces, unplugging devices from the network, or sending packets from a test station. The test procedure also cues the tester to make observations of expected behavior, as needed, as not all steps require observation of results. If any behavior is expected for a procedure, it is to be observed prior to continuing to the next step. Failure to observe any behavior prior to continuing constitutes a failed test. Note, that while test numbers continue between test parts, each test part is to be executed independently (Following Common Test Setup and Cleanup as indicated), and are not cascaded from the previous part.
Possible Problems	The **Possible Problems** section contains a description of known issues with the test procedure, which may affect test results in certain situations.

References

The following documents are referenced in these texts:

[RFC 4193] R. Hinden, B.Haberman. "Unique Local IPv6 Unicast Addresses". RFC 4193, October 2005.

[RFC 4291] R.Hinden, S. Deering, "IP Version 6 Addressing Architecture", RFC 4291, February 2006.

[RFC 4007] S. Deering, B. Haberman, T. Jinmei, E. Nordmark, B. Zill, "IPv6 Scoped Address Architecture", RFC 4007, March 2005.

[RFC 3879] C. Huitema, B. Carpenter, "Deprecating Site Local Addresses". RFC 3879, September 2004.

[RFC 6724] D. Thaler, R.Draves, A.Matsumoto, T.Chown, "Default Address Selection for Internet Protocol version 6 (IPv6)", RFC 6724, September, 2012.

[RFC 2526] D. Johnson, S. Deering, "Reserved IPv6 Subnet Anycast Addresses", RFC 2526, March 1999.

[RFC 4862] Thomson, S. and T. Narten. "IPv6 Stateless Address Autoconfiguration". RFC 4862, September 2007.

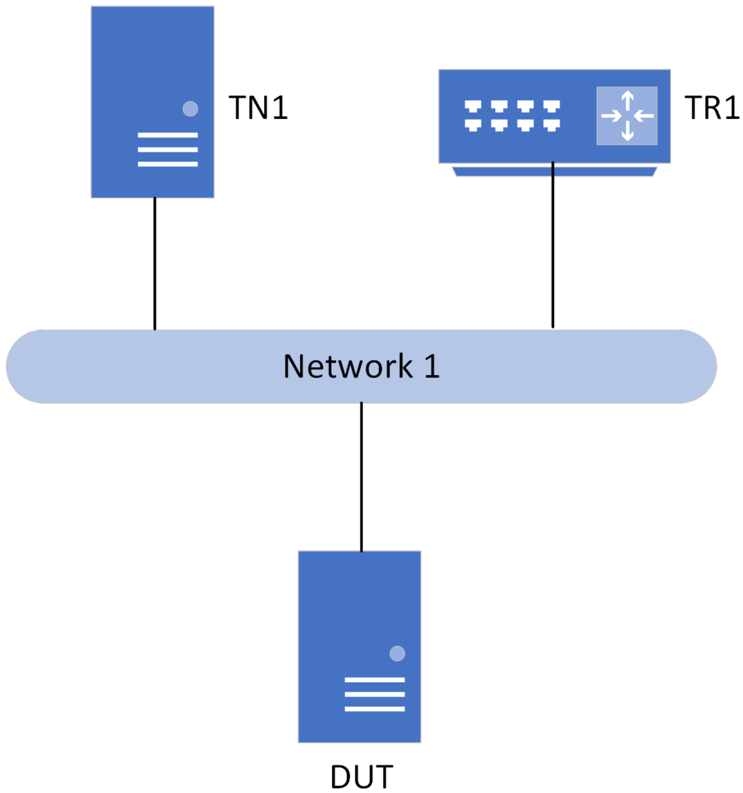
[RFC 4443] A. Conta, S. Deering, M. Gupta, Ed. "Internet Control Message Protocol for the Internet Protocol Version 6 (IPv6) Specification". RFC 4443, March 2006.

[RFC 7608] M.Boucadair, A.Petrescu, F.Baker. "IPv6 Prefix Length Recommendation for Forwarding". RFC 7608, July 2015.

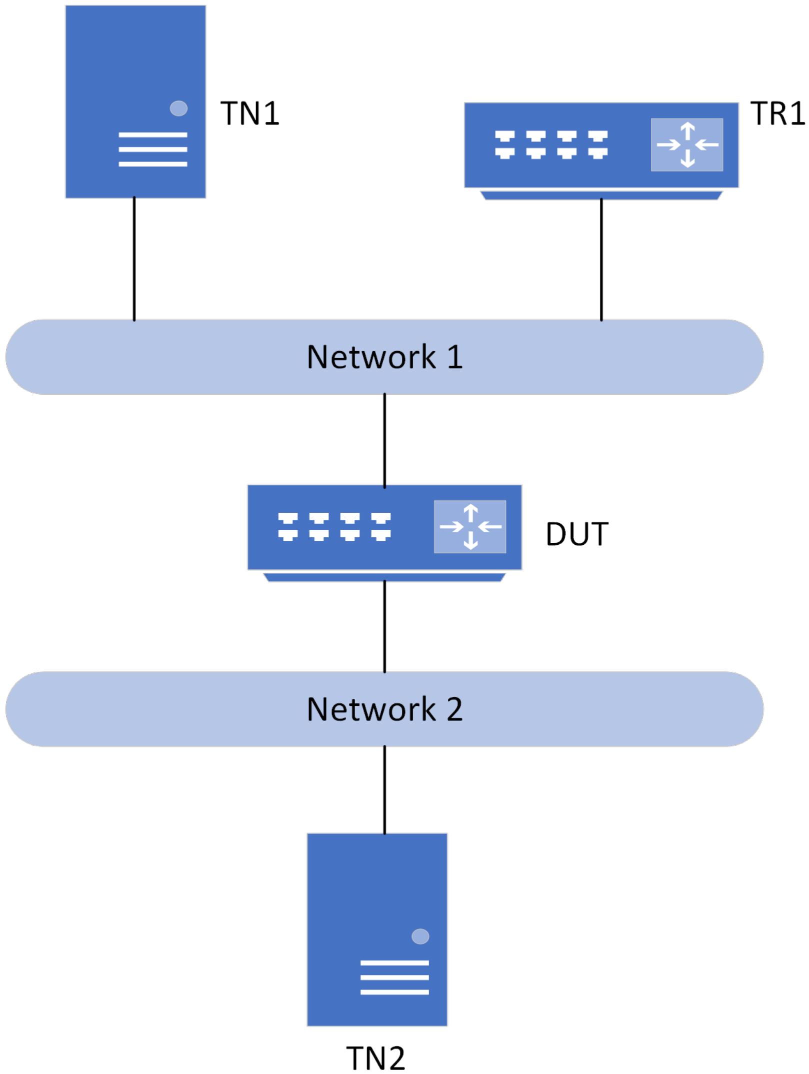
[RFC 6164] M. Kohno, B.Nitzan, R.Bush, Y.Matsuzaki, L.Colitti, T.Narten. "Using 127-bit IPv6 Prefixes on Inter-Router Links", RFC 6164, April 2011.

Common Topology

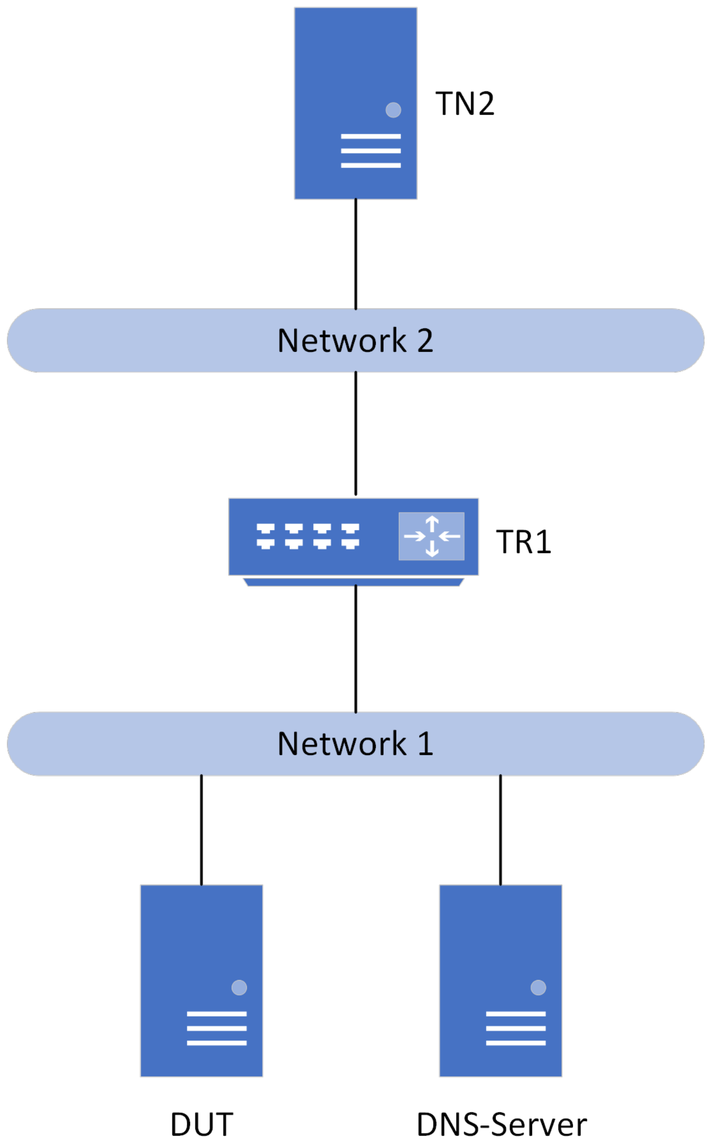
The following topology is used for a Host.



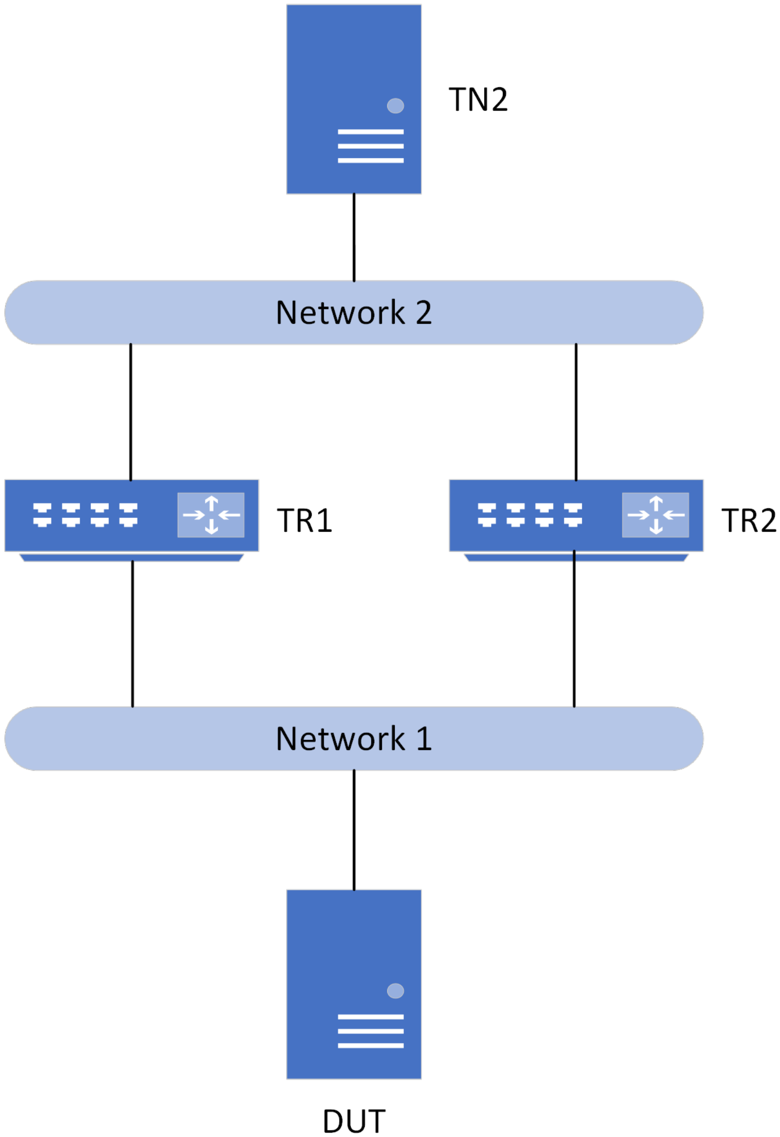
The following topology is used for a Router.



Single-Router Topology



Multi-Router Topology



Common Test Setup and Cleanup

Common Test Cleanup (for all tests)

1. *Summary:* The Cleanup procedure should cause the DUT to transition Neighbor Cache entries created in this test to state INCOMPLETE and remove any entries from its Default Router and Prefix Lists.
2.
    1. If a TR transmitted a Router Advertisement in the Test Setup or Procedure, that TR transmits a Router Advertisement with the Router Lifetime and each Prefix Lifetime, if applicable, set to zero.
    2. Each TR or TN in the test transmits a Neighbor Advertisement for each Neighbor Cache Entry with a Target Link-layer Address Option containing a different cached address. The Override flag should be set.
    3. Each TR or TN transmits an Echo Request to the DUT and waits for an Echo Reply.
    4. Each TR or TN does not respond to further Neighbor Solicitations.

Group 1: IPv6 Address Architecture

Scope

These tests are designed to verify a device's behavior regarding IPv6 Address Architecture.

Overview

The tests in this group verify conformance of a device regarding the assignment of IPv6 addresses according to RFC 4291, 4007, 4193, and 3879.

Test Addr.1.1: IPv6 Address

Purpose: To verify that an IPv6 node can properly identify and scope IPv6 addresses

Reference:

- [RFC 4007] – Section 7 and 8
- [RFC 4291] – Section 2.5

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test. TR1 transmits Router Advertisements with a valid global prefix on Network 1. If the DUT is a router configure a valid global address on Network 1.

Procedure:

Part A: Link-local address

Step	Action	Expected Behavior
1.	TN1 transmits an ICMPv6 Echo Request to the link-local address of the DUT.	The DUT must transmit ICMPv6 Echo Reply to TN1.

Part B: Multicast address

Step	Action	Expected Behavior
2.	TN1 transmits an ICMPv6 Echo Request to the all nodes address (FF02::1).	The DUT must transmit ICMPv6 Echo Reply to TN1.

Part C: Global address

Step	Action	Expected Behavior
3.	TN1 transmits an ICMPv6 Echo Request to the global address of the DUT.	The DUT must transmit ICMPv6 Echo Reply to TN1.

Part D: Loopback address

Step	Action	Expected Behavior
4.	TN1 transmits an ICMPv6 Echo Request to the Loopback address (0:0:0:0:0:0:0:1). The source address is TN1's Link-Local address.	The NUT must not send an Echo Reply in response to the Echo Request from TN1.

Possible Problems: RFC 4443 states "An Echo Reply SHOULD be sent in response to an Echo Request message sent to an IPv6 multicast or anycast address." The DUT may choose to omit Part B if they don't support responding to a multicast packet.

Test Addr.1.2: Default Source Address Selection

Purpose: To verify that a node properly selects the proper source address.

Reference:
- [RFC 6724] – Section 5

Test Setup: The network is setup per the Single-Router Topology for Parts A-B. The Common Topology is used for Parts C-D. The Multi-Router Topology is used for Part E. The Common Test Cleanup is performed after each test. TR1 is set as the default router for the DUT. Configure the Router Advertisement Interval to 120 seconds on all Networks.

Router Advertisement A
IPv6 Header Next Header: 58 Source Address: TR1's Link-Local Address Destination Address: Multicast Address
Router Advertisement Router Preference: High (01)
Source Link-layer Address Option
Prefix Option "on-link" (L) flag: 1 Prefix: 2001:2:0:1000

Router Advertisement B
IPv6 Header Next Header: 58 Source Address: TR2's Link-Local Address Destination Address: Multicast Address
Router Advertisement Router Preference: Medium (00)
Source Link-layer Address Option
Prefix Option "on-link" (L) flag: 1 Prefix: 2001:2:0:1100

Procedure:

Part A: Use longest matching prefix

Step	Action	Expected Behavior
1.	TR1 transmits a Router Advertisements with a Prefix of 2001:2:0:1000::/64 and 2001:2:0:1100::/64 on Network 1. If the DUT is a router configure a prefix of 2001:2:0:1000::/64 and 2001:2:0:1100::/64 on Network 1.	
2.	The DUT transmits an ICMPv6 Echo Request to TN2 with a destination address of 2001:2:0:1110::1.	The DUT must transmit an ICMPv6 Echo Request with a 2001:2:0:1100::/64 source address to TN2.

Part B: Avoid deprecated addresses (Host only)

Step	Action	Expected Behavior
3.	TR1 transmits Router Advertisements with Prefix 2001:2:0:1000::/64 and 2001:2:0:1100::/64 on Network1. Prefix 2001:2:0:1000::/64 is configured with preferred and valid lifetimes that last the entire test. Prefix 2001:2:0:1100::/64 is configured with a preferred lifetime of 15 seconds and a valid lifetime of 120 seconds.	
4.	Wait between 15 seconds and 120 seconds.	
5.	The DUT transmits an ICMPv6 Echo Request to TN2 with a destination address of 2001:2:0:1110::1.	The DUT must transmit an ICMPv6 Echo Request with a source address of the DUT's Prefix 2001:2:0:1000::/64 address to TN2.

Part C: Prefer appropriate scope

Step	Action	Expected Behavior
6.	TR1 transmit valid Router Advertisement with Prefix 2001:2:0:1000/64 on Network 1. If the DUT is a router Prefix 2001:2:0:1000::/64 is configured on Network 1.	
7.	The DUT transmits an ICMPv6 Echo Request to the global address of TN1.	The DUT must transmit an ICMPv6 Echo Request with a source address of the DUT's global address to TN1.

Part D: Prefer Temporary Address (Host only)

Step	Action	Expected Behavior
8.	Configure the HUT to use both temporary and global addresses.	
9.	TR1 transmits a Router Advertisement A.	
10.	The NUT transmits an Echo Request to TN1.	The DUT must transmit an ICMPv6 Echo Request with a source address of the DUT's temporary address.

Part E: Prefer Next-Hop Advertised Prefix (Host only)

Step	Action	Expected Behavior
11.	TR1 transmits a Router Advertisement A.	
12.	TR2 transmits a Router Advertisement B.	
13.	The DUT transmits an Echo Request to TN2.	The DUT must transmit an ICMPv6 Echo Request with a 2001:2:0:1000::/64 source address to TN1 with TR1 as the first hop.

Possible Problems:

- An IPv6 implementation is not required to remember which next-hops advertised which prefixes. The conceptual models of IPv6 hosts in Section 5 of [RFC4861] and Section 3 of [RFC4191] have no such requirement. Hence, Rule 5.5 is only applicable to implementations that track this information. Therefore implementations that don't track this information may omit Part E.
- A device may not support temporary address, if this is the case Part D may be omitted.
- A passive node does not implement an application for sending Echo Request. This test may be omitted if the DUT is a passive node.

Test Addr.1.3: Default Destination Address Selection

Purpose: To verify that a node properly selects the correct destination address.

Reference:
- [RFC 6724] – Section 6

Test Setup: The network is setup per the Single-Router Topology. The Common Test Cleanup is performed after each test. DNS-Server is manually configured as the DNS server on the DUT.

Procedure:

Part A: Use longest matching prefix

Step	Action	Expected Behavior
1.	TR1 transmits a Router Advertisement with 2001:2:0:1000::/64 and 2001:2:0:1100::/64 on Network 1. If the DUT is a router configure a global prefix of 2001:2:0:1000::/64 and 2001:2:0:1100::/64 on Network 1 with a default router of TR1.	
2.	The DUT transmits an ICMPv6 Echo Request for "node1.test.example.com".	
3.	In response to the DNS query from the DUT, DNS-Server transmits a DNS response with two AAAA records for TN2. In order, first record with TN2 address 2001:2:0:1003::1 and the second record with TN2 address 2001:2:0:1110::1.	The DUT must transmit ICMPv6 Echo Requests with a destination address of 2001:2:0:1003::1.
4.	The DUT transmits an ICMPv6 Echo Request for "node2.test.example.com".	
5.	In response to the DNS query from the DUT, DNS-Server transmits a DNS response with two AAAA records for TN2. In order, first record with TN2 address 2001:2:0:1110::1 and the second record with TN2 address 2001:2:0:1003::1.	The DUT must transmit ICMPv6 Echo Requests with a destination address of 2001:2:0:1003::1.

Part B: Avoid deprecated addresses (Host only)

Step	Action	Expected Behavior
6.	TR1 transmits a Router Advertisement with Prefix 2001:2:0:1000::/64 and 2001:2:0:1100::/64 on Network1. Prefix 2001:2:0:1000::/64 is configured with a preferred lifetime of 15 seconds and a valid lifetime of 120 seconds. Prefix 2001:2:0:1100::/64 is configured with preferred and valid lifetimes that last the entire test.	
7.	Wait between 15 and 120 seconds.	
8.	The DUT transmits an ICMPv6 Echo Request for “node1.test.example.com”.	
9.	In response to the DNS query from the DUT, DNS-Server transmits a DNS response with two AAAA records for TN2. In order, first record with TN2 address 2001:2:0:1003::1 and the second record with TN2 address 2001:2:0:1110::1.	The DUT must transmit ICMPv6 Echo Requests with a destination address of Prefix 2001:2:0:1110::1.
10.	The DUT transmits an ICMPv6 Echo Request for “node2.test.example.com”.	
11.	In response to the DNS query from the DUT, DNS-Server transmits a DNS response with two AAAA records for TN2. In order, first record with TN2 address 2001:2:0:1110::1 and the second record with TN2 address 2001:2:0:1003::1.	The DUT must transmit ICMPv6 Echo Requests with a destination address of Prefix 2001:2:0:1110::1.

Possible Problems:

- If DUT doesn’t support DNS, another application that allows a list of destination addresses is acceptable. This method for proving this is Step 3 and Step 9 have different answers than Step 5 and 11. If the DUT sends Echo Requests to different addresses in these steps, this shows that the application only selects the first entry in DNS and this test case may be omitted.
- A passive node does not implement an application for sending Echo Request. This test may be omitted if the DUT is a passive node.

Test Addr.1.4: Unique Local IPv6 Addresses

Purpose: To verify that a node properly uses unique local IPv6 address.

Reference:

- [RFC 4193] – Section 4

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test. TR1 transmits Router Advertisements with a valid Unique Local prefix on Network 1. If the DUT is a router, configure a valid Unique Local Address on Network 1.

Procedure:

Part A: Transmitting Unique Local IPv6 Addresses

Step	Action	Expected Behavior
1.	The DUT transmits ICMPv6 Echo Request to unique local address of TN1.	The DUT must transmit an ICMPv6 Echo Request to TN1 with a unique local address as the source and destination address.

Part B: Receiving Unique Local IPv6 Address

Step	Action	Expected Behavior
2.	TN1 transmits ICMPv6 Echo Request to unique local address of the DUT.	The DUT must transmit an ICMPv6 Echo Reply to TN1 with a unique local address as the source and destination address.

Possible Problems: A passive node does not implement an application for sending Echo Request. Part A may be omitted if the DUT is a passive node.

Test Addr.1.5: Deprecating Site Local Addresses

Purpose: To verify that a node properly deprecates IPv6 site local address.

Reference:

- [RFC 3879] – Section 4

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test. TR1 transmits Router Advertisements with a valid Site Local prefix on Network 1. If the DUT is a router, configure a valid Site Local Address on Network 1.

Procedure:

Part A: Transmitting Site Local IPv6 Addresses

Step	Action	Expected Behavior
1.	The DUT transmits an ICMPv6 Echo Request to the site local address of TN1.	The DUT must transmit an ICMPv6 Echo Request to TN1 with a site local address as the source and destination.

Part B: Receiving Site Local IPv6 Address

Step	Action	Expected Behavior
2.	TN1 transmits an ICMPv6 Echo Request to the site local address of the DUT.	The DUT must transmit an ICMPv6 Echo Reply to TN1 with a site local address as the source and destination.

Possible Problems: A passive node does not implement an application for sending Echo Request. Part A may be omitted if the DUT is a passive node.

Group 2: IPv6 Router

Scope

These tests are designed to verify a router behavior regarding IPv6 Address Architecture.

Overview

The tests in this group verify interoperability of a router regarding the assignment of IPv6 addresses according to RFC 4291, 4007, 4193, 3879, and 3484.

Test Addr.2.1: Routing Unique Local IPv6 Addresses (Router Only)

Purpose: To verify that a router properly routes unique local IPv6 address.

Reference:

- [RFC 4193] – Section 4.1

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test. Configure the DUT with unique local addresses on Network 1 and Network2.

Procedure:

Step	Action	Expected Behavior
1.	TN2 transmits an Echo Request to TN1's unique local address with a first hop through the DUT. The source address is TN1's global unique local address.	The DUT must forward the Echo Requests to TN1.

Possible Problems: None.

Test Addr.2.2: Routing Deprecated Site Local IPv6 Addresses (Router Only)

Purpose: To verify that a router properly routes unique local IPv6 address.

Reference:
- [RFC 3879] – Section 4

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test. Configure the DUT with unique local addresses on Network 1 and Network2.

Procedure:

Step	Action	Expected Behavior
1.	TN2 transmits an Echo Request to TN1's site local addresses with a first hop through the DUT. The source address is TN2's global site local address.	The DUT must forward the Echo Requests to TN1.

Possible Problems: None.

Test Addr.2.3: IP Fowarding – Source and Destination Address (Router Only)

Purpose: To verify that a router properly forwards the ICMPv6 Request with different source and destination addresses.

Reference:

- [RFC 3879] – Section 4
- [RFC 4291] – Section 2.5

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test. Configure the DUT with global addresses on Network 1 and Network2. For Part B, configure the DUT with an address with prefix 8000::/64 on Network1 and prefix 8001::/64 on Network2.

Procedure:

Part A: Request sent to Global Address

Step	Action	Expected Behavior
1.	TN2 transmits an ICMPv6 Echo Request to TN1's global unicast address with a first hop through the DUT. The source address is TN2's global address.	The DUT must forward the Echo Request to TN1.

Part B: Request sent to Global Unicast address (prefix end in zero-valued fields)

Step	Action	Expected Behavior
2.	TN2 transmits an ICMPv6 Echo Request to TN1's global unicast address (prefix 8000::/64) with a first hop through the DUT. The source address is TN2's global address.	The DUT must forward the Echo Request to TN1.

Part C: Request sent from unspecified address

Step	Action	Expected Behavior
3.	TN2 transmits an ICMPv6 Echo Request to TN1's global unicast address with a first hop through the DUT. The source address is the unspecified address (::).	The DUT must not forward the Echo Request to TR1.

Part D: Request sent from Loopback address

Step	Action	Expected Behavior
4.	TN2 transmits an ICMPv6 Echo Request to TN1 to the loopback address (0:0:0:0:0:0:0:1) with a first hop through the DUT. The source address is TN2's global address.	The DUT must not forward the Echo Request to TR1.

Part E: Request sent from Link Local address

Step	Action	Expected Behavior
5.	TN2 transmits an ICMPv6 Echo Request to TN1 with a first hop through the DUT. The source address is TN2's Link Local address.	The DUT must not forward the Echo Request to TN1.

Part F: Request sent to Link Local address

Step	Action	Expected Behavior
6.	TN2 transmits an ICMPv6 Echo Request to TN1's Link Local address with a first hop through the DUT. The source address is TN2's Global address.	The DUT must not forward the Echo Request to TN1.

Part G: Request sent to Global Scope multicast address

Step	Action	Expected Behavior
7.	Configure multicast routing on the DUT.	
8.	TN1 is a Listener for the multicast group FF1E::1:2.	
9.	TN2 transmits an ICMPv6 Echo Request to TN1's Global Scope multicast address (FF1E::1:2) with a first hop through the DUT. The source address is TN2's Global address.	The DUT must forward the Echo Request to TN1.

Part H: Request sent to Link Local scope multicast address

Step	Action	Expected Behavior
10.	Configure multicast routing on the DUT.	
11.	TN1 is a Listener for the multicast group FF12::1:2.	

12.	TN2 transmits an ICMPv6 Echo Request to TN2's Link-Local Scope multicast address (FF12::1:2) with a first hop through the DUT. The source address is TN2's Global address.	The DUT must not forward the Echo Request to TN1.

Part I: Request sent to Multicast address (Reserved Value = 0)

Step	Action	Expected Behavior
13.	Configure multicast routing on the DUT.	
14.	TN1 is a Listener for the multicast group FF10::1:2.	
15.	TN2 transmits an ICMPv6 Echo Request to multicast address with a reserved field set to zero (FF10::1:2) with a first hop through the DUT. The source address is TN2's Global address.	The DUT must not forward the Echo Request to TN1.

Part J: Request sent to Multicast address (Reserved Value = F)

Step	Action	Expected Behavior
16.	Configure multicast routing on the DUT.	
17.	TN1 is a Listener for the multicast group FF1F::1:2.	
18.	TN2 transmits an ICMPv6 Echo Request to TN1's multicast address with a reserved field set to zero (FF1F::1:2) with a first hop through the DUT. The source address is TN2's Global address.	The DUT must forward the Echo Request to TN1.

Possible Problems: Parts G-J may be omitted if DUT does not support multicast routing.

Test Addr.2.4: IPv6 Prefixes greater than 64-bits (Router Only)

Purpose: To verify that a router properly supports the assignment of /127 prefix on point-to-point inter-router links and routing prefixes greater than 64-bits.

Reference:

- [RFC 6164] – Section 6

Test Setup: The network is setup per Common Topology. The Common Test Cleanup is performed after each test.

Procedure:

Part A: Subnet Anycast address

Step	Action	Expected Behavior
1.	Configure the RUT to have a point-to-point link with a /127 prefix by adding the address 2001:2:0:1000::1271/127 to its Network 1 interface.	
2.	TN1 transmits a Neighbor Solicitation to the RUT's Subnet-Router anycast address	The RUT must not respond to TN1 by sending a Neighbor Advertisement.
3.	Remove the address from the RUT.	
4.	Configure the RUT to have a point-to-point link with a /127 prefix by adding the address 2001:2:0:1000::1270/127 to its Network 1 interface.	The RUT must send a DAD NS packet for the address 2001:2:0:1000::1270.

Possible Problems: None.

Modification Record

Version 3.2 October 28, 2022

- Recreated existing topology diagrams
- Added Single-Router Topology for use in 1.2 and 1.3
- Updated 2.4 to use Common Topology for Routers instead of Multi-Router Topology
- Replaced mention of TN1 with TN2 in 1.2 and 1.3.
- Misc. typo/terminology changes in 1.2 and 1.3 to clarify test procedures

Version 3.1 June 11, 2021

- Removed test for routing prefixes larger than /64 (2.4b)
- Added steps to 2.4A to verify that a router can add both point-to-point addresses.
- Removed mention of ULAs from 2.4 Test Setup

Version 3.0 July 16, 2020

- Added Loopback address test (1.1d)
- Added a Temporary address test case (1.2d)
- Added a prefer next hop test (1.2e)
- Add Support for routing prefixes larger than /64 (2.4)

Version 2.5 February 4, 2020

- Removed IPv6 Mobility Test Cases (1.2C, 1.3B)
- Removed test case 1.3C (Link-local address in DNS)
- Added Steps to 1.3 to allow verify devices that don't support a list of destination address in the DNS application.
- Removed reference to 2526.
- Updated to use IPv6 Benchmarking Prefix (RFC 5180) for all specified address.
- Moved Modification Record to the end of the document.
- Updated the results to check both the source and destination address in 1.4 and 1.5.
- Added the default route in 1.2.
- Updated the format on the test plan.

Version 2.4 August 16, 2010

- Added possible problem for multicast ping.
- Removed Public Address Test case as this wasn't testable requiring a Echo Request be transmitted during DAD on most devices.
- Support passive node.
- Added test 2.3 to support forwarding test cases.

Version 2.3 January 7, 2010

- Added possible problem for support 4941 in test 1.2

Version 2.2 December 16, 2009

- Changed direction of pings in test 1.2. (going from the DUT to TN1)
- Added possible problem for mobility in test 1.3.
- Removed test 2.3 due to Routing Header zero.

Version 2.1 November 30, 2009

		• Organized Test Cases by RFC.
Version 2.0	August 4, 2009	• Added Tests RFC 4291- IP Forwarding (Routers) • Reorganized Section 2 for Default Address Selection
Version 1.0	April 24, 2009	• Initial Version.