USGv6 Test Selection Tables*

IPv6 Stateless Address Autoconfiguration (SLAAC)

I2-Interoperability: IPv6 Stateless Address Autoconfiguration (SLAAC)

Applicable Profile: NIST SP 500-267 A profile for IPv6 in the U.S. Government - Version 1.0, July 2008.

Configuration Option: SLAAC

Test Specification Id:

- [Core-Interoperability] IPv6 Ready Phase1/2 Test Interoperability Specification Core Protocols, Version 4.0.4, March 22, 2010, [editor: IPv6 Ready Logo].
- [DHCPv6-Interoperability] IPv6 READY DHCPv6 Interoperability Test Suite, Revision 1.1.0 , [editor: IPv6 Ready Logo].

Reference:

- [RFC 4861] Narten, T., Nordmark, E., and W. Simpson, H. Soliman, Neighbor Discovery for IP Version 6 (IPv6), RFC 4861, September 2007.
- [RFC 4862] Thomson, S., T. Narten, T. Jinmei, IPv6 Stateless Address Autoconfiguration, RFC 4862, September 2007.
- [RFC 3736] Droms, R, Stateless Dynamic Host Configuration Protocol (DHCP) Service for IPv6, RFC 3736, April 2004.

Interoperability Partner Requirements:

- Any host or router claiming compliance with the USGv6 profile MUST demonstrate evidence of interoperability with **three** or more independent implementations of IPv6. The three implementations must include at least one Host and at least one Router.
- Can not change Target nodes once testing has begun.

Core-Interoperability
If your Device Under Test (DUT) Type is **Host**:

- DUT = TAR-Host1 for all tests.
- TAR-Host2 = Independent Implementation Device B
- TAR-Router1 = Independent Implementation Device C
- Third Interoperability Partner is satisfied by executing the test specification again using the following:
  - TAR-Router1 = Independent Implementation Device D

If your Device Under Test (DUT) Type is **Router** :

- DUT = TAR-Router1 for all tests.
- TAR-Host1 = Independent Implementation Device B
- TAR-Router2 = Independent Implementation Device C
- Third Interoperability Partner is satisfied by executing the test specification again using the following:
  - TAR-Host1 = Independent Implemenation Device D

DHCPv6-Interoperability
If your Device Under Test (DUT) Type is **Host**:

- DUT = TAR-Client1 for all tests.
- TAR-Server1 = Independent Implementation Device B
- TAR-Relay-Agent1 = Independent Implementation Device C
- Third Interoperability Partner is satisfied by executing the test specification again using the following:
  - TAR-Server1 = Independent Implemenation Device D
  - **[Note: Device B, C and D may be different from Devices used for Core-Interoperability]**

SLAAC Applicable Test Check List				
Reference	**Test Specification Id**	**Test Number**	**Device Type**	**Passed**
RFC 4862	Core-Interoperability	IP6Interop.1.2 Address Autoconfiguration and Duplicate Address Detection (A)(B)(C)(D)	Host	
RFC 4862	Core-Interoperability	IP6Interop.1.2 Address Autoconfiguration and Duplicate Address Detection (C)(D)(E)(F)	Router	

NOTE: The following tests are considered a **C(M)** for the SLAAC Requirements as per the USGv6-v1 Profile.

RFC 4862 Section 5.5 Creation of Global Addresses				
Reference	**Test Specification Id**	**Test Number**	**Device Type**	**Passed**
RFC 4862	Core-Interoperability	IP6Interop.1.3 Processing Router Advertisements - Prefix Discovery (A)(B)(C)	Host/Router	

NOTE: The following tests are considered a **C(S+)** for the Stateless DHCP Requirements as per the USGv6-v1 Profile.

Stateless DHCP Tests				
Reference	**Test Specification Id**	**Test Number**	**Device Type**	**Passed**
RFC 3736	DHCPv6-Interoperability	DHCPInterop.3.1: Stateless DHCPv6 Configuration Options Exchange	Host	
RFC 3736	DHCPv6-Interoperability	DHCPInterop.3.2: Stateless DHCPv6 Relay Agent Basic Message Exchange with DNS Configuration Options	Host	

* The objective of this test selection sheet is to provide a reference for available test specifications that identifies tests applicable to the USGv6 Profile.