

USGv6 Test Selection Tables

Addressing Architecture Requirements

F5-Interoperability: Addr Arch Requirements R1v1.1

Applicable Profile: NIST SP 500-267B Revision 1 USGv6 Profile – November 2020.

Test Specification Id:

- [[AddrInterop](#)] Address Architecture Interoperability Test Plan, Version 3.1, June, 2021, [editor: [UNH InterOperability Laboratory](#)].

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.
- Target nodes must not change once testing has begun.

AddrInterop

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

- DUT = TAR-Node1 for all tests.
- TAR-Node1 = Independent Implementation Device B
- TAR-Node2 = Independent Implementation Device C
- TAR-Node3 = Independent Implementation Device D

Addressing Architecture Test Check List			
Reference	Test Specification Id	Test Number	Device Type
RFC 4007, 4291	AddrInterop	AddrInterop.1.1: IPv6 Scoped Address (A)(B)(C)(D)	Host/Router
RFC 6724	AddrInterop	AddrInterop.1.2: Default Source Address Selection (A)(C)	Host/Router
RFC 6724	AddrInterop	AddrInterop.1.2: Default Source Address Selection (B)(D)(E)	Host
RFC 6724	AddrInterop	AddrInterop.1.3: Default Destination Address Selection (A)	Host/Router
RFC 6724	AddrInterop	AddrInterop.1.3: Default Destination Address Selection (B)	Host
RFC 4193	AddrInterop	AddrInterop.1.4: Unique Local IPv6 Address (A)(B)	Host/Router
RFC 3879	AddrInterop	AddrInterop.1.5: Deprecating Site Local Addresses (A)(B)	Host/Router
RFC 4193	AddrInterop	AddrInterop.2.1: Routing Unique Local Addresses	Router
RFC 3879	AddrInterop	AddrInterop.2.2: Routing Deprecated Site Local Addresses	Router
RFC 6164, 7608	AddrInterop	AddrInterop.2.3: IPv6 Prefixes greater than 64 bits (A)	Router

References:

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

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