

USGv6 Test Selection Tables

OSPF for IPv6

I9-Interoperability: Routing Protocol R1v1.0

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

Test Specification Id:

- [[OSPFv3-Interoperability](#)] OSPFv3 Interoperability Test Plan, Version 2.0, July, 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.

Interoperability Partners:

- DUT = TR1 for all tests.
- TAR-Router1 = Independent Implementation Device B
- TAR-Router2 = Independent Implementation Device C
- TAR-Router3 = Independent Implementation Device D
- H1, H2 and H3 = Any devices which can execute ping6 function

OSPF for IPv6 Test Check List			
Reference	Test Specification Id	Test Number	Device Type
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.1.1 DR/BDR Election based on Router ID (A)(B)(C)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.1.2 DR/BDR Election based on Router Priority (A)(B)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.1.3 Hello Protocol – Hello Packet Mismatch (A)(B)(C)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.2.1 Area – Shortest Path Selection (A)(B)(C)(D)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.3.1 AS – Shortest Path Selection (A)(B)(C)(D)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.3.2 Virtual Link Connection a Remote Area (A)(B)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.3.3 Prefer Intra-Area Routes over Inter-Area Routes	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.4.1 Stub Area (A)(B)	Router

RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.4.2 ASBR Type1 and Type2 External Routes (A)(B)(C)	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.4.3 Intra-AS Paths to ASBR, Prefer Larger Area ID	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.4.4 Intra-AS Paths to ASBR, Prefer Non-Backbone Area	Router
RFC 5340	OSPFv3-Interoperability	OSPFv3.IO.4.5 Inter-Area Routes through Transit Areas (A)(B)(C)	Router

References:

- [RFC 5340] Coltun, R., Ferguson, D., Moy, J., and A. Lindem, "OSPF for IPv6", RFC 5340, DOI 10.17487/RFC5340, July 2008.

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