

USGv6 Test Selection Tables*

IPsec-v3

I16-Interoperability: IPsec-v3-v1.2

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

Configuration Option: IPsec-v3

Test Specification Id:

- [[IPsec-Interoperability](#)] IPv6 Ready Logo Phase-2 Interoperability Test Scenario IPsec, Version 1.10.0, May 31, 2010, [editor: [IPv6 Ready Logo](#)].

Reference:

- [RFC4301] Kent, S. and K. Seo, "Security Architecture for the Internet Protocol", RFC 4301, December 2005.
- [RFC4303] Kent, S., "IP Encapsulating Security Payload (ESP)", RFC 4303, December 2005.

Device Type Definitions:

- **ROUTER:** A device capable of forwarding packets.
- **HOST:** A device which is not a ROUTER.
- **End-Node:** Both HOSTs and ROUTERs can be End-Nodes.
- **SGW:** A SGW is a specialized ROUTER.
* NOTE: if the Device Under Test is a ROUTER and it supports Tunnel Mode, it should be tested as a SGW.

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 End-Node and at least one SGW.
- Can not change Target nodes once testing has begun.

IPsecv3-Interoperability

If your Device Under Test (DUT) Type is **End-Node**:

- DUT = TGT_Host1 for all tests.
- TGT_Host2 = Independent Implementation Device B
- TGT_SGW1 = Independent Implementation Device C
- Third Interoperability Partner is satisfied by executing the test specification again using the following:
 - TGT_SGW1 = Independent Implementation Device D
 - or
 - TGT_Host2 = Independent Implementation Device D

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

- DUT = TGT_SGW1 for all tests.
- TGT_Host1 = Independent Implementation Device B
- TGT_SGW2 = Independent Implementation Device C
- Third Interoperability Partner is satisfied by executing the test specification again using the following:
 - TGT_Host1 = Independent Implementation Device D
 - or
 - TGT_SGW2 = Independent Implementation Device D

NOTE: If the SGW supports Transport Mode, Section 5.1 is tested where the DUT = TGT_Host1. TGT_Host2 = Device B

IPsec-v3 Test Check List

Reference	Test Specification Id	Test Number	Device Type	Passed
RFC 4301/4303	IPsecv3-Interoperability	5.1.8. Transport Mode: Select SPD (ICMP Type)	End-Node	
RFC 4301/4303	IPsecv3-Interoperability	5.1.11. Transport Mode: Fragmentation	End-Node	
RFC 4301/4303	IPsecv3-Interoperability	5.2.11. Tunnel Mode: Fragmentation	SGW	
RFC 4301/4303	IPsecv3-Interoperability	5.3.11. Tunnel Mode: Fragmentation	End-Node/SGW	
RFC 4301/4303	IPsecv3-Interoperability	5.4.8. Tunnel Mode: Select SPD (ICMP Type)	End-Node	
RFC 4301/4303	IPsecv3-Interoperability	5.4.11. Tunnel Mode: Fragmentation	End-Node	

NOTE: The following tests have been omitted from the USGv6 Test Program for the IPv6 Basic Requirements. These tests are considered SHOULDs as defined by the IETF.

Not Required				
Reference	Test Specification Id	Test Number	Device Type	
RFC 4303	IPsecv3-Interoperability	5.1.9. Transport Mode: dummy packet handling	End-Node	
RFC 4301/4303	IPsecv3-Interoperability	5.1.10. Transport Mode: TFC padding	End-Node	
RFC 4301/4303	IPsecv3-Interoperability	5.2.8. Tunnel Mode: Select SPD (ICMP Type)	SGW	
RFC 4303	IPsecv3-Interoperability	5.2.9. Tunnel Mode: dummy packet handling	SGW	
RFC 4301/4303	IPsecv3-Interoperability	5.2.10. Tunnel Mode: TFC padding	SGW	
RFC 4301/4303	IPsecv3-Interoperability	5.3.8. Tunnel Mode: Select SPD (ICMP Type)	End-Node/SGW	
RFC 4303	IPsecv3-Interoperability	5.3.9. Tunnel Mode: dummy packet handling	End-Node/SGW	
RFC 4301/4303	IPsecv3-Interoperability	5.3.10. Tunnel Mode: TFC padding	End-Node/SGW	
RFC 4303	IPsecv3-Interoperability	5.4.9. Tunnel Mode: dummy packet handling	End-Node	
RFC 4301/4303	IPsecv3-Interoperability	5.4.10. Tunnel Mode: TFC padding	End-Node	

* The objective of this test selection sheet is to provide a reference for available test specifications that identifies tests applicable to the USGv6 IPv6 Profile.