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_SWG1 = 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 Implemenation Device D
    or
  - TGT_SGW2 = Independent Implemenation 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.