Compare IPv6 Tests from IWL to Others

IPv6 Ready Logo Program	IWL Maxwell Pro IPv6 Tests
Basic RFC Conformance	Advanced IPv6 Conformance
Basic Interoperability	Advanced Interoperability
Community Support	Commercial Support
No Software Development (1)	Ongoing Software Development
Advertising Logo	No Advertising Program
Manual Testing	Automated Testing
Cannot create/modify your own tests	Create/Modify your own tests

(1) TAHI Software support terminated Dec 2012

IPv6 Ready Logo Tests

The IPv6 Ready certification program addresses RFC Conformance and Interoperability. "RFC Conformance" mean the tests verify that the DUT (device under test) does what it is supposed to do based on the RFC specifications. "Interoperability" means the tests verify that the DUT can send and receive IPv6 datagrams to and from other devices.

The IPv6 Core Interoperability test requires testing against four different Vendors with different IPv6 Stacks. The counter implementations must be two routers and two Hosts.

Maxwell Pro IPv6 Test Suite

The IPv6 tests from IWL are a superset of the TAHI tests. Instead of sending well behaved IPv6 datagrams to the DUT, Maxwell Pro sits in the middle of the protocol conversation between two DUTs and intercepts and changes the datagrams in unique ways while the protocol conversation continues. Maxwell Pro modifies the datagrams by changing the IPv6 protocol, the timing, the sequence, etc. to verify that the DUT not only handles well behaved IPv6 traffic, but also malformed, incorrect, and unusual IPv6 traffic. In this sense, Maxwell Pro is a much deeper test of the quality of the IPv6 implementation, in that it goes beyond RFC Conformance and Interoperability testing to include Negative Testing, Inopportune Testing, Deep-path Testing, and Robustness (Security) Testing.

A discussion of these types of testing can be found in the Network Protocol Testing Overview.

Maxwell Pro is there to measure how your stack handles deviations from the RFCs. The TAHI Conformance tests are there to verify that you are in compliance with the applicable RFCs. The TAHI interoperability tests measure how well compliant stacks play with other compliant stacks and routers.

It is possible for products to pass the TAHI tests, receive the IPv6 Ready certification, and then fail in an installation because they were not tested to properly respond to malicious or malformed or simply unusual IPv6 datagrams.

The IPv4 and IPv6 Test Suite is used by design and quality assurance engineers to find and fix bugs in IPv6 stacks. Test your IPv6 stack for conformance/compliance, interoperability, robustness, and vulnerabilities. The tests make use of the Maxwell Pro network emulation environment, so that each test sequence can intelligently impair all aspects of the IPv4 and IPv6 protocol.

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