Product Catalog

Veryx ATTEST



October 2026









Introduction

With widespread adoption of IP and Ethernet based networking technologies, network equipment manufacturers, service providers and test labs are looking for solutions to perform various tests on network devices quickly and at lower costs.

Veryx ATTEST Conformance and **Fuzz Testing** solutions enable organizations to reduce effort, cost and the time taken perform network protocol testing using **automated test suites** in an **integrated testing framework,** with many **tester-friendly** features such as flexible DUT control, GUI or CLI-based access, easy debugging and detailed reporting.

Veryx ATTEST test suites are based on the Veryx ATTEST Framework – a powerful environment that makes testing and debugging faster and easier.

Veryx ATTEST Conformance Testing

Veryx ATTEST Conformance Testing suites are automated test suites for a wide range of Ethernet and IP protocols:

- **Veryx ATTEST-CTS** test suites verify conformance to protocol standards.
- **Veryx ATTEST-XP** test suites consist of tests covering functionality, scalability, Interoperability etc.

Veryx ATTEST Fuzz Testing

Veryx ATTEST Fuzz Testing suites are automated test suites that provide advanced generation-based as well as mutation fuzz implementation, covering various protocols (IPv4, IPv6, OSPF, BGP, MPLS etc.) for security testing of network equipment such as routers, switches, WLAN CPEs, ONT/OLTs, by exposing them to abnormal protocol behavior that is difficult to reproduce through conventional functional testing.



Veryx ATTEST Test Framework

Veryx ATTEST Test Framework supports a flexible and distributed environment catering to diverse and dynamic test lab requirements.

ATTEST significantly speeds up the testing cycles and accelerates product development. Its unique design results in minimal time for integration and enables efficient use of time and resources.

ATTEST provides centralized management of user access, test results and reports, while facilitating a flexible distributed test environment. Using browser-based access, testers can have anytime, anywhere access to the test environment.

ATTEST provides reports to enable test teams track the progress of testing. The testing progress for different devices under test with corresponding software image versions can be tracked from the ATTEST client systems.

ATTEST servers connected to the device under test, can be hosted in Linux-based COTS systems or VMs and accessed using popular browsers.

ATTEST System Requirements

- X86_64 common off-the-shelf server (COTS) with 8 GB RAM and 100 GB HDD), Linux Fedora Core 44

OR

- Virtual Machine (4vCPU, 8 GB RAM, 40 GB HDD) with Linux Fedora Core 44
- Required test interfaces: 1,2,4 port 1/10Gb NICs
- Management interface: 1/10Gb port

Supported Browsers:

- Google Chrome – version 90 and above
- Microsoft Edge – version 90 and above
- Mozilla Firefox – Version 90 and above
- Apple Safari – Version 14 and above

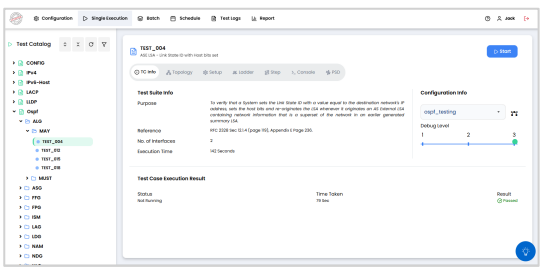


Figure 1. ATTEST Conformance Test case overview

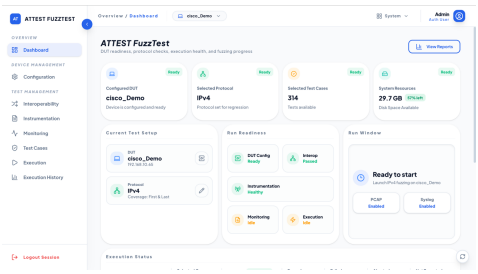


Figure 2. ATTEST Fuzz Testing dashboard



ATTEST Conformance Test Suites

TEC IP

ER v2.28 Annex P1-12

IP Router

- IPv4
- IPv6 Router & Host
- Dual IP Stack (IPv6 Tunnel)
- TCP
- BGP & BGP4+
- LDP
- OSPFv2 & OSPFv3
- PPPoE & RADIUS

IP Security

- IPSec
- Policy
- NAT
- UTM & Antivirus
- IDS, IPS

Layer 2

- STP
- Bridging

VoIP

- SIP
- RTP
- RTCP
- SCTP
- DTMF
- SIP-I
- MGCP
- M3UA
- CCS#7

IPv4

Multicast

- IGMPv1/v2
- IGMPv3
- PIM-SM
- PIM-DM

Unicast

- BFD
- BGP4
- DHCP
- IPv4
- ISIS
- OSPF
- RIP

Security

- NAT
- IPSEC / IKE-v1,v2

TEC SDWAN

ER - TEC30072603

- SDWAN Router
- SDWAN Controller

IPv6

Multicast

- MLD Router
- MLD Listener
- PIM-SMv6
- PIM-DMv6

Unicast

- BGP4+
- IPv6ReadyLogo - Host
- IPv6ReadyLogo - Router
- IPv6 - Tunnels
- ISISv6
- OSPFv3
- RIPng

Layer 2

Bridging

- IGMP-Snoop
- LACP
- LLDP
- STP/MSTP/RSTP
- VLAN
- MMRP
- MVRP

Security

- 802.1X

Time Sync

- PTPv2 (IEEE 1588)

Industrial

- MRP
- PRP

Carrier Ethernet

OAM

- Link OAM (802.3ah)
- CFM (802.1ag)
- SOAM (Y.1731)

Backhaul

- ERPS (G.8032)

MEF

- CE 2.0

MPLS

- LDP
- BFD MPLS)
- MPLS-TP Data Plane
- MPLS-TP Data Plane M2M
- MPLS-TP DCN
- MPLS-TP OAM (G.8113.1)
- MPLS-TP LPS (G.8131)
- MPLS-TP G.8032



ATTEST Fuzz Test Suites

IPv4

IPv4
- IPv4
- ARP Client/Server
- DHCP Client/Server
- DNS
- ICMP
- UDP
- TCP Client
- TCP for IPv4 server
- NAT

IPv4 Unicast Routing
- RIP
- OSPFv2
- BGP
- ISIS
- HSRP/VRRP

IPv4 Multicast Routing
- IGMP
- PIM-SM
- PIM-DM

IPv6

IPv6
- IPv6
- IPv6ND
- ICMPv6
- TCP for IPv6 Server

IPv6 Unicast Routing
- RIPng
- OSPFv3

IPv6 Multicast Routing
- MLD

MPLS

- LDP

WLAN

- WPA2/3
- LWAPP
- CAPWAP

Timing

- NTP Client/Server
- PTP Client/Server

Management

- SNMPv2
- SNMPv3
- Netconf

Applications

- SFTP
- SSHv2
- TLS
- HTTPS



Table 1. ATTEST TEC ER v2.28 Annex P1-12 Test Suites

Category	Test Suite	Standards / RFC reference	Test-case count	Interfaces	
				Min	Max
TEC – IP Router, IP Security, Layer-2, VoIP	**IP Router**				
	IPv4 Set-D	RFC 791. Annex-P11, P11.1, Appendix-II, Test-5	1	2	2
	IPv6 Router	RFC 8200 4861 4862 8201 4443 Annex-P11, P11.15 to P11.19 (Appendix-I, Table 3 to Table 7)	20	1	1
	IPv6 Host	RFC 8200 4861 4862 8201 4443 Annex-P11, P11.15 to P11.19 (Appendix-I, Table 3 to Table 7)	20	1	1
	Dual IP (IPv6 Tunnel)	RFC 8200 4861 4862 8201 4443 Annex-P11, P11.15 to P11.19 (Appendix-I, Table 3 to Table 7)	4	1	1
	TCP	RFC 793. Annex-P11, Appendix-II, Test-10	1	1	1
	BGP	RFC 4271 4760. Annex-P11,P11.21, P11.22, Appendix-I, Table-9, Appendix-I, Table-10	6	2	2
	BGP4+	RFC 2545. Annex-P11,P11.20, Appendix-I, Table-8	1	2	2
	LDP	RFC 5036 Annex-P11, P11.23 Appendix-I, Table-11	5	1	3
	OSPFv2	RFC 2328 Annex-P11, P11.13, Appendix-I, Table-1	4	2	2
	OSPFv3	RFC 2740 Annex-P11, P11.14, Appendix-I, Table-2	4	2	2
	PPoE	RFC 2516. Annex-P11, P11.34, Appendix-II, Test-14	1	1	1
	Static Routing	Appendix-II Test-9	1	2	2
	Dynamic Routing	Appendix-II Test-8	1	2	2
	RADIUS	RFC 2865. Annex-P11, P11.35, Appendix-II, Test-15	1	1	1
	IP Security				
	IPSEC	Annex-P11, P11.24, Appendix-II, Test-16	3	2	2
	Policy	Annex-P11,P11.26, Appendix-II, Test-19	1	2	2
	NAT	Annex-P11,P11.25, Appendix-II, Test-17, 18	2	2	2
	UTM	Annex-P11,P11.30,Appendix-II, Test-24, 25, 26	3	2	2
	IDS	Annex-P11,P11.27,Appendix-II, Test-20, 21	2	2	2
	IPS	Annex-P11,P11.29,Appendix-II, Test-22, 23	2	2	2
	Layer-2				
	STP	802.1D 1998	70	1	2
	Bridging	Annexure to ERs - 2.10/ August2021,S.No. P11.9 Clause/Section Appendix-II, Test11	1	2	2
	VoIP				
	SIP	RFC 3261. Annex-P1, P1.1. to P1.6	13	1	2
	RTP	RFC 3550. Annex-P2, P2.1 to P2.5	11	1	2
	RTCP	RFC 3551. Annex-P3, P3.1 to P3.5	7	1	2
	SCTP	RFC 4960. Annex-P9, P9.1 to P9.10	10	1	2
	DTMF	RFC 4733. Annex-P8, P8.1 to P8.14	14	1	2
	SIP-I	Q.1912.5. Annex-P1, P1.22 to P1.28	5	1	2
	MGCP	H.248. Annex-P5, P5.3 to P3.5	1	2	2
	M3UA	RFC 3332. Annex-P10, P10.1 to P10.4	13	2	2
	CCS#7	ITU-T Q.784. Annex-D3, D3.6 to D3.22	17	1	2



Table 2. ATTEST IPv4 Test Suites

Category	Test Suite	Standards / RFC reference	Test-case Count	Interfaces	
				Min	Max
IPv4 Unicast	**IPv4 - CTS**	**Internet Protocol Version 4**	**120**		
	IPv4 - CTS	IETF RFC 791, 792, 950, 1122, 1812	120	1	3
	OSPFv2 - CTS	**Open Shortest Path First**	**384**		
	OSPFv2 - CTS	IETF RFC 1850, 2328	384	1	3
	RIP - CTS	**Routing Information Protocol**	**78**		
	RIP - CTS	IETF RFC 1058, 1724, 1812, 2082, 2453	78	1	3
	DHCP - CATS	**Dynamic Host Control Protocol**	**303**		
	DRA - CTS	IETF RFC 3046, 1542, 2132, 2131	129	2	3
	DHCP Server - XP	IETF RFC 2131, 2132	174	1	2
	BFD - CTS	**Bi-directional Forwarding Detection**	**148**		
	BFD - CTS	IETF RFC 5880 (draft-ietf-bfd-base-11.txt), IETF RFC 5881 (draft-ietf-bfd-v4v6-1hop-11.txt), draft-ietf-bfd-mib-07.txt	148	1	2
	BGP4 – CTS	**Border Gateway Protocol version 4**	**200**		
	BGP4 - CTS	IETF RFC 4271	200	1	3
	ISIS – CTS	**Intermediate System to Intermediate System**	**201**		
	ISIS - CTS	IETF RFC 1195, 3719, 3847, 3787, ISO-10589:2002(E)	201	1	3
	EIGRP – CTS	**Enhanced Interior Gateway Protocol**	**81**		
	EIGRP - CTS	IETF RFC 7868	81	1	2
IPv4 Multicast	**IGMP - CTS**	**Internet Gateway Management Protocol**	**137**		
	IGMPv1v2 - CTS	IETF RFC 2236, 1112	65	1	2
	IGMPv3 - CTS	IETF RFC 3376	72	1	2
	PIM - CTS	**Protocol Independent Multicast**	**369**		
	PIM-DM - CTS	IETF RFC 3973	89	1	3
	PIM-SM - CTS	IETF RFC 4601, 5059	280	1	3
IPv4 Security	**NAT - XP**	**Network Address Translation**	**175**		
	NAT - XP	IETF RFC 2663	175	2	2
	IPSec - CTS	Internet Protocol Security	**124**		
	IPSec - CTS	IETF RFC 4301, 4302, 4303, 4835, 2403, 2404, 2410, 2451, 3602, 4306, 4307, 2409, 4109	124	1	2
	IKE - CATS	**Internet Key Exchange**	**272**		
	IKEv1 - CTS	IETF RFC 2407, 2408, 2409, 4109	182	1	2
	IKEv2 - CTS	IETF RFC 4306, 4307	90	1	2



Table 3. ATTEST TEC DSWAN Test Suites

Category	Test Suite	Standards / RFC reference	Test-case Count	Interfaces	
				Min	Max
SDWAN	Router	TEC30072603	13	2	2
	Controller	TEC30072603	12	2	2

Table 4. ATTEST IPv6 Test Suites

Category	Test Suite	Standards / RFC reference	Test-case count	Interfaces	
				Min	Max
IPv6 Unicast	**IPv6 – CTS**	**Internet Protocol version 6**	**846**		
	IPv6ReadyLogo Host - CTS	IETF RFC 2460, 4861, 4862, 1981, 4443, 8200, 4191, 4862 - IPv6 Ready Logo Core Protocols test specification for Phase 2 Revision 5.0.1	429	1	3
	IPv6ReadyLogo Router - CTS	IETF 2474, 3168, 4443, 4291, 2460, 4861, 4862, 1981, 5095 - IPv6 Ready Logo Core Protocols test specification for Phase 2 Revision 4.0.6	329	1	3
	IPv6 Tunnel - CTS	IETF RFC 2529, 2893, 3056, 3068	88	1	3
	OSPFv3 - CTS	**Open Shortest Path First for IPv6**	**375**		
	OSPFv3 - CTS	IETF RFC 2328, 2740	375	1	3
	BGP4+ - CTS	**Border Gateway Protocol for IPv6**	**210**		
	BGP4+ - CTS	IETF RFC 4271, 2545, 4760	210	2	3
	ISISv6 - CTS	**Intermediate System to Intermediate System for IPv6**	**201**		
	ISISv6 - CTS	IETF 1195, 3719, 3847, 5308, ISO-10589:2002(E)	201	1	3
	RIPng – CTS	**Routing Information Protocol next generation**	**65**		
	RIPng - CTS	IETF RFC 2080	65	1	3
IPv6 Multicast	**MLD - CTS**	**Multicast Listener Discovery Protocol**	**180**		
	MLDL - CTS	IETF RFC 2710, 3810	77	1	1
	MLDR - CTS	IETF RFC 2710, 3810	103	2	2
	PIM-DMv6 - CTS	**Protocol Independent Multicast for IPv6– Dense Mode**	**139**		
	PIM-DMv6 - CTS	IETF RFC 3973	139	2	3
	PIM-SMv6 - CTS	**Protocol Independent Multicast for IPv6– Sparse Mode**	**269**		
	PIM-SMv6- CTS	IETF RFC 4601, draft-ietf-pim-sm-bsr-09	269	2	3



Table 5. ATTEST Layer-2 Test Suites

Category	Test Suite	Standards / RFC reference	Test-case count	Interfaces	
				Min	Max
Layer 2	**STP – CTS**	**Spanning Tree Protocol**	**70**		
	STP – CTS	IEEE 802.1D-1998	70	1	3
	MSTP – CTS	**Multiple Spanning Tree Protocol**	**249**		
	MSTP – CTS	IEEE 802.1s-2002, 802.1Q-2003, 802.1Q-2005	249	1	3
	RSTP – CTS	**Rapid Spanning Tree Protocol**	**144**		
	RSTP – CTS	802.1w-2001,802.1d-2004	144	1	3
	VLAN – CTS	**Virtual Local Area Network**	**115**		
	VLAN - CTS	IEEE 802.1d-1998, 802.1d-2004, 802.1Q-2003 and 802.1Q-2005	115	1	3
	IGS – CTS	**IGMP Snooping**	**90**		
	IGS - CTS	draft-ieft-magma-snoop-12/RFC 4541, RFC 1112, RFC 2236 and RFC 3376	90	2	3
	LACP – CTS	**Link Aggregation Control Protocol**	**87**		
	LACP - CTS	IEEE 802.3-2002, 802.3 - 2005 Clause 43	87	2	4
	802.1X-CTS	**Port-based Network Access Control Protocol**	**104**		
	802.1X - CTS	IEEE 802.1x -2001, IEEE 802.1x -2004	104	2	2
	LLDP – CTS	**Link Layer Discovery Protocol**	**196**		
	LLDP - CTS	IEEE 802.1AB-2005, IEEE 802.1AB-2009, IEEE 802.1AB-2016	196	1	2
	MRP-MVRP – CTS	**Multiple VLAN Registration Protocol**	**91**		
	MRP-MVRP - CTS	IEEE 802.1ak – 2007	91	1	3
	MRP-MMRP – CTS	**Multiple MAC Registration Protocol**	**96**		
	MRP-MMRP - CTS	IEEE 802.1Q – 2011	96	1	3



Table 6. ATTEST Time Synchronization Test Suites

Category	Test Suite	Standards / RFC reference	Test-case Count	Interfaces	
				Min	Max
PTP	**PTP - CTS**	**Precision Time Protocol**	**205**		
	Boundary clock - CTS	IEEE 1588™-2019	87	1	2
	Ordinary clock - CTS	ITU-T G.8275.1/Y.1369.1,	89	1	2
	Transparent clock - CTS	ITU-T G.8275.2/Y.1369.2	29	1	2

Table 7. ATTEST Industrial Ethernet Test Suites

Category	Test Suite	Standards / RFC reference	Test-case Count	Interfaces	
				Min	Max
Industrial Ethernet	**MRP - CTS**	**Media Redundancy Protocol**	**111**		
	MRP - CTS	IEC 62439/Ed 1.0	111	2	4
	PRP - CATS	**Parallel Redundancy Protocol**	**86**		
	PRP - CTS	IEC 62439-3:2011/FDIS	32	2	4
	PRP - XP		54	3	3



Table 8. ATTEST Carrier Ethernet Test Suites

Category	Test Suite	Standards / RFC reference	Test-case count	Interfaces	
				Min	Max
Carrier Ethernet	**EFMOAM – CTS**	**Ethernet in First Mile – Link OAM**	**111**		
	EFMOAM - CTS	IEEE 802.3ah - 802.3 2005 Clause 57	111	1	4
	CFM – CTS	**Connectivity Fault Management**	**198**		
	CFM – CTS	IEEE 802.1ag 2007	198	1	4
	Y.1731 – CTS	**Service OAM**	**197**		
	Y.1731 – CTS	ITU-T Y.1731 2015	197	1	2
	ERPS – CATS	**Ethernet Ring Protection Switching**	**124**		
	ERPS – CTS	ITU-T G.8032/Y.1344 (2015)/Cor.1 (08/2017)	89	3	4
	ERPS – XP**	ITU-T G.8032/Y.1344	35	3	4

** Requires Xena Valkyrie test platform

Table 9. ATTEST MPLS Test Suites

Category	Test Suite	Standards / RFC reference	Test-case count	Interfaces	
				Min	Max
MPLS	**BFD-MPLS – CTS**	**Bi-directional Forwarding Detection for MPLS**	**83**		
	BFD-MPLS - CTS	IETF RFC 5884 (draft-ietf-bfd-mpls-07.txt), IETF RFC 5880 (draft-ietf-bfd-base-11.txt)	83	1	3
	MPLS-LDP – CTS	**MPLS Label Distribution Protocol**	**468**		
	LDP – CTS	IETF RFC 5036, RFC 3478, RFC 3815, RFC 5283	468	1	3
	MPLS-TP – CTS	**MPLS Traffic Profile**	**432**		
	MPLS-TP Data Plane	IETF RFC 5654, 5960	62	2	4
	MPLS-TP Data Plane M2M	RFC 5654, 4665	44	3	4
	MPLS-TP OAM (G.8113.1)	RFC 5860, RFC 6371, ITU-T G.8113.1/Y.1372	229	2	2
	MPLS-TP G.8131 (LPS)	ITU-T G.8131/Y.1382	47	3	3
	MPLS-TP DCN	RFC 5718	7	2	2
	MPLS-TP-G.8032	ITU-T G.8032/Y.1344 (2012)	63	3	4

About Veryx Technologies

Veryx Technologies (www.veryxtech.com) is an innovative enterprise providing solutions that enhance product quality and testing efficiency. Leading equipment vendors, rely on the ATTEST range of products for testing applications in Access, Carrier Ethernet, Data Center, Edge, Enterprise, Industrial Networking and Security domains for over a decade. The unique offerings from Veryx enable customers to reduce the “time-required-to-test” and enhance their “time-to-market”

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