



## Veryx ATTEST™ BGP4 Conformance Test Suite DATASHEET

Veryx ATTEST™-CTS Border Gateway Protocol Version 4 (BGP4) automated test suite provides Equipment Manufacturers and Service Providers an easy and efficient solution for verification of BGP4 implementation in routers deployable in IPv4 networks. ATTEST enables significant speeding up of testing cycles and reduces the "time-to-market".

Veryx ATTEST BGP4 Conformance Test Suite is designed for conformance testing of the BGP4 in IPv4 networks. ATTEST BGP4 relies on ATTEST -- a powerful test framework that requires minimal time for set-up and enables efficient use of time and resources.

Veryx has devised over 200 test cases that comprehensively test for BGP4 conformance. These test cases have been grouped into 8 convenient test groups based on the RFC specifications for each category of functions.

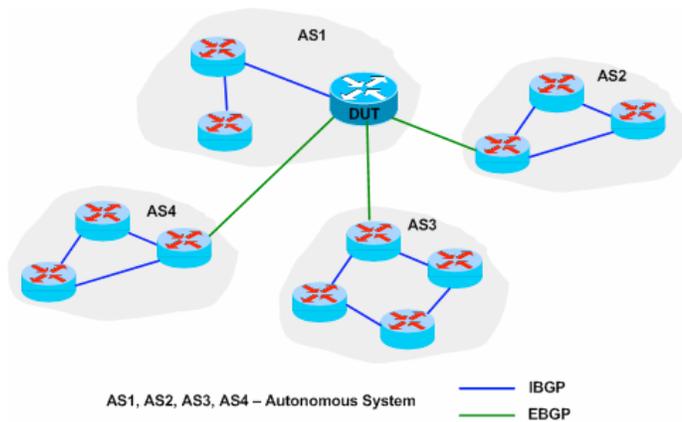


Figure 1: Typical BGP4 Topology

### SPECIFICATIONS

IETF RFC 4271

### BGP4 TESTS

- \* Connection Request
- \* Local System Configuration
- \* BGP Functionality
- \* Message Transaction
- \* Message Format
- \* Error Handling
- \* Finite State Machine
- \* Update Message Handling

### PLATFORM REQUIREMENTS

- \* ATTEST 6.x Framework
- \* 3 Ethernet ports
- \* Serial or additional Ethernet port for DUT management

ATTEST BGP4 test cases verify both IBGP and EBGP implementations. The test cases verify the following:

- Initiation and establishment of TCP connection
- Configuration of the local system
- Sending, modifying and propagation of messages based on the functionality

ATTEST BGP4 test cases verify the transaction of messages sent or received, format of the message sent or received and various attributes such as ORIGIN, AS\_PATH, NEXT\_HOP etc. It also verifies routes stored in ADJ\_RIBs\_IN, ADJ\_RIBs\_OUT and LOC\_RIBs. BGP TCP session establishment is verified for both Active and Passive neighbors. Handling of finite state machine messages and errors by sending notification messages with error codes and subcodes is also verified.

ATTEST BGP4 Conformance Test Suite is written in industry standard Tcl scripts. Well-defined APIs and source files provide the flexibility to add, customize or modify the test cases for specific requirements. Together with other ATTEST-CTS and ATTEST-XP test suites for IPv4 protocols, Veryx provides one of the widest ranges of test suites for verification of IPv4. Test suites for IPv6, Layer-2 bridging and Carrier Ethernet are also available.

### About Veryx Technologies

Veryx Technologies (formerly Net-O<sub>2</sub> Technologies) provides innovative Verification and Measurement Solutions for the global communications industry. ATTEST solutions verify networking equipment being used for Access, Carrier Ethernet, Data Center, Edge, Enterprise, Industrial and Security. The unique offerings from Veryx enable customers to reduce the "time-required-to-test" and enhance their "time-to-market".

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