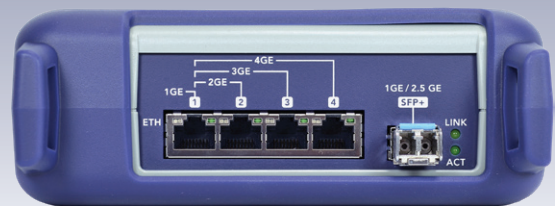# NET-BOX™
Reliable Speed Test Solution

VeEX

Optimized Quality of Experience (QoE) testing platform for Gigabit services. It offers a low-cost high-performance alternative to expensive laptops for multi-Gigabit business (or enterprise) and residential speed tests.

Platform Highlights

- Mobile app for iOS® and Android™ devices.
- Cost effective: eliminates the need for expensive high-end laptops or complex test equipment for QoE verification in gigabit services.
- V-TEST Throughput Test supports VeEX Mode and Speedtest Powered™ Mode based on Ookla® technology.
- Truly scalable: 4xRJ45 ports for up to 4GE speed and SFP cage for 1000BASE-X and 2500BASE-X.
- Simple easy to use graphical UI.
- Inexperienced technicians benefit from built-in intuitive process. Step-by-step testing process and troubleshooting guide.
- Ready to pair on startup with QR code for quick and easy pairing.
- Ethernet, WiFi, and Bluetooth® connection methods available.
- Configurable network management settings for connecting through LAN.
- R-Server compatible.
- Fast boot-up time and up to 8 hours of continuous use.
- Supports 1m drop to concrete on all sides.
- Shoulder strap for easy transportation.

Software Support

NET-BOX App

NET-BOX is designed to be managed with the NET-BOX mobile app. The unit can be controlled via LAN, WiFi, or Bluetooth from selected platforms. The iOS and Android apps are available for download from the VeEX Apps website. The Android app is also available at the Google Play™ store.

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Test Applications

V-TEST Throughput Test

The V-TEST feature qualifies network TCP/HTTP protocol performance by testing against a V-TEST HTTP server. Both features can test up to the full line rate depending on the server specifications and limitations. Connection time to the server, data transfer time, line rate throughput rates, and protocol (FTP and HTTP) throughput rates key metrics are reported during the tests.

The V-TEST application is flexible enough to operate in different modes depending on the user preference. VeEX Managed mode, Speedtest Powered mode based on Ookla technology, and User Managed mode.

- **VeEX Managed mode**: The customer's servers are added to a customer server list that is maintained and managed by VeEX for the end-user's ease of use and convenience. The full list of server IP addresses or URLs are provided to VeEX. Once added, all the user has to do is select the server from their company list and initiate the test to the selected server.
- **Speedtest Powered mode**: The test follows Ookla's methodology and tests to the Speedtest Server Network. In this mode, the test is compatible with Ookla's protocol/methodology; it will scan nearby servers in the local market and test to the server with the fastest (lowest latency) response.
- **User Managed mode**: Users are allowed to enter the server IP/URL and save it to a server list that they can maintain and manage on their own.

RFC6349 V-PERF TCP Test

A common source of customer complaints comes from file transfer speeds not matching the throughput rates guaranteed in the SLA. While many factors affect TCP applications performance, including customer's operating system hardware performance and settings (TCP window size), carriers need to prove SLA with a test tool that can show TCP performance independent of operating system or server limitations and present repeatable reliable results.
The test set V-PERF feature uses RFC6349 test methodology and metrics for qualifying network TCP performance. It offers:
- Stateful TCP Test at line rate.
- TCP Client Server modes.
- Compatible iPerf Client/Server MTU search per RFC4821.
- Round trip time measurement.
- Configurable TCP window sizes.
- Multi-window size tests.

Measurements
- TCP Throughput rate (min, max, average).
- Transfer file size and duration.
- Transfer time ratio.
- TCP Efficiency %.
- Buffer Delay %.
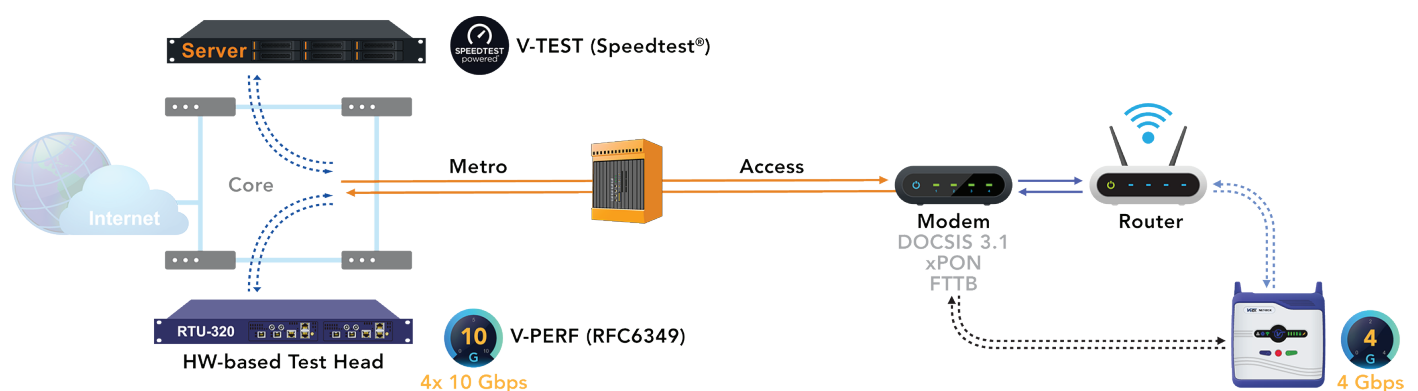
R-Server Support

A VeSion centric cloud platform, R-Server is a complete asset management system that allows users to quickly and easily: view statistics, find problem areas, and track test sets/job performance. R-Server prioritizes organization, navigation and speed as key characteristics. This provides administrators with a detailed overview of all regions in seconds and allows managers/supervisors to focus on their own regions, districts, and/or systems.

Jobs are made simpler for technicians. Supervisors can preset and upload test parameters which are provided to the test sets as profiles. Technicians can simply download profiles, run tests, and upload results to a centralized system that stores and secures the data. No need to worry about losing test results ever again.
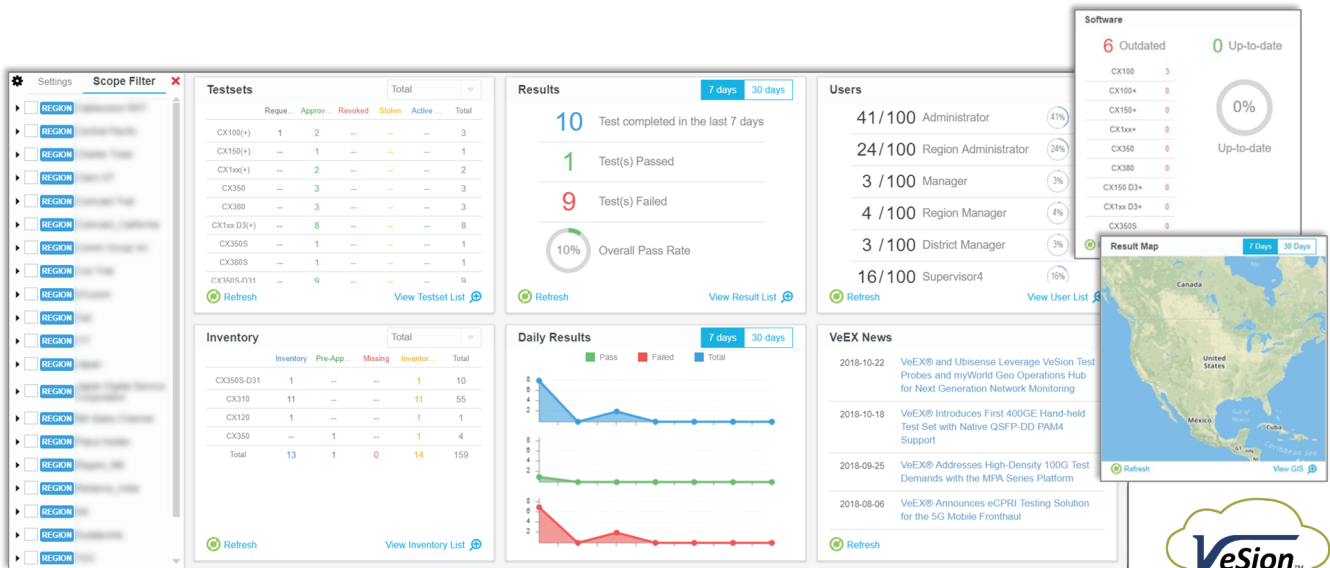
General Specifications

Management Interfaces		**Weight**	0.680 Kgs (1.5 Lb)
Ethernet	1x RJ45 10/100BASE-T FDX	**Battery**	Li-ion, 50 Whr 7.2V
WiFi	802.11a, b, g, n	**Power Supply (AC Adaptor)**	12V/5A (60 Watt),
Bluetooth		**Operating Temperature**	0˚C to 50˚C (32˚F to 122˚F)
Micro-B USB port		**Storage Temperature**	-40˚C to 70˚C (-40˚F to 158˚F)
Display	Mobile app	**Humidity**	5% to 90% non-condensing
Languages	Multiple languages can be supported	**Ruggedness**	Survives 1m drop to concrete on all sides
Dimensions	156 x 146 x 72 mm		

The Verification Experts