Octobox Software

Accelerate Tests and Obtain Insight

Overview

To serve the rapid growth in work-from-home requirements and ever-accelerating demand for streaming entertainment services, the need for increasingly sophisticated Wi-Fi features such as OFDMA, MU-MIMO, and mesh Wi-Fi has grown. The ability to test these features before they can be launched to the market is vital.

Octobox Software automates and delivers critical insight that streamlines and reduces testing times. For example, the dashboard mode allows engineers to create new test scenarios more easily, while better data visualization and plots make the results easier to interpret and share. The Octobox multiPerf traffic generator makes it possible to test with any device, while also adding improvements in the ability to measure delay and jitter. Tight synchronization of instruments in the testbed allows measurements of one-way delay, along with in-depth statistics showing how that delay and other parameters vary over time.

Octobox Software leverages the power of parallel databases and processing built into all Octobox testbeds, allowing them to be used for emulation of multipoint-to-multipoint test scenarios involving dozens of real devices, while providing real-time feedback of the test progress and results.

Features

- Dashboard mode that allows engineers to create new tests easily
- Improved plots
- Multiperf traffic generator with Android and Windows support
- One-way delay measurements

Benefits

- Create tests faster
- Analyze test results faster
- Test on more devices

KEYSIGHT

Dashboard Mode

When opened, the user interface defaults to dashboard mode. The dashboard mode is an interactive section of the web user interface that allows the user to quickly perform tests using the software. It can be used for simple tests or for optimizing more complicated testing scenarios.

- The **left side** of the dashboard mode includes controls for traffic pairs, attenuators, Wireshark sniffing and the turntable.
- The **middle section** shows plots for any Layer 2 statistics that the user wants to follow. The middle part also shows status and provides control for all the attenuators in the testbed.
- The **right side** of the user interface provides status for all the test instruments in the testbed.

The dashboard mode supports saving a test as an autotest to run it in autotest mode.

Figure 1. Octobox Software in dashboard mode

Autotest Mode

The purpose of the autotest mode is to run tests that have been previously saved. Test can be selected using a simple GUI from a set of tests saved on the system.

Once the test is selected and run, the interface shows visualization of the test progress. Just like in dashboard mode, the user can select which layer 2 plots to view. The status of the test instruments as well as the attenuators are visualized on the screen.

The difference from dashboard mode is that in autotest mode, the user cannot inadvertently configure the test scenario. In this way, mistakes in the testing process can be avoided because the test creation (dashboard) and the test execution (autotest) modes are separated.

Figure 2. Octobox Software in autotest mode

multiPerf Mode

Octobox Software multiPerf has been enhanced through:

- Support for Android and Windows operating systems
- One-way delay measurements

The new operating system support allows a variety of off-the-shelf devices such as phones to be added to test scenarios. multiPerf will control the device through a USB connection so that the wireless measurements are not affected.

New types of timing measurements in the software now allow one-way delay measurements to be made. Tight synchronization of instruments in the testbed allow in-depth statistics in how that delay and other parameters vary over time.

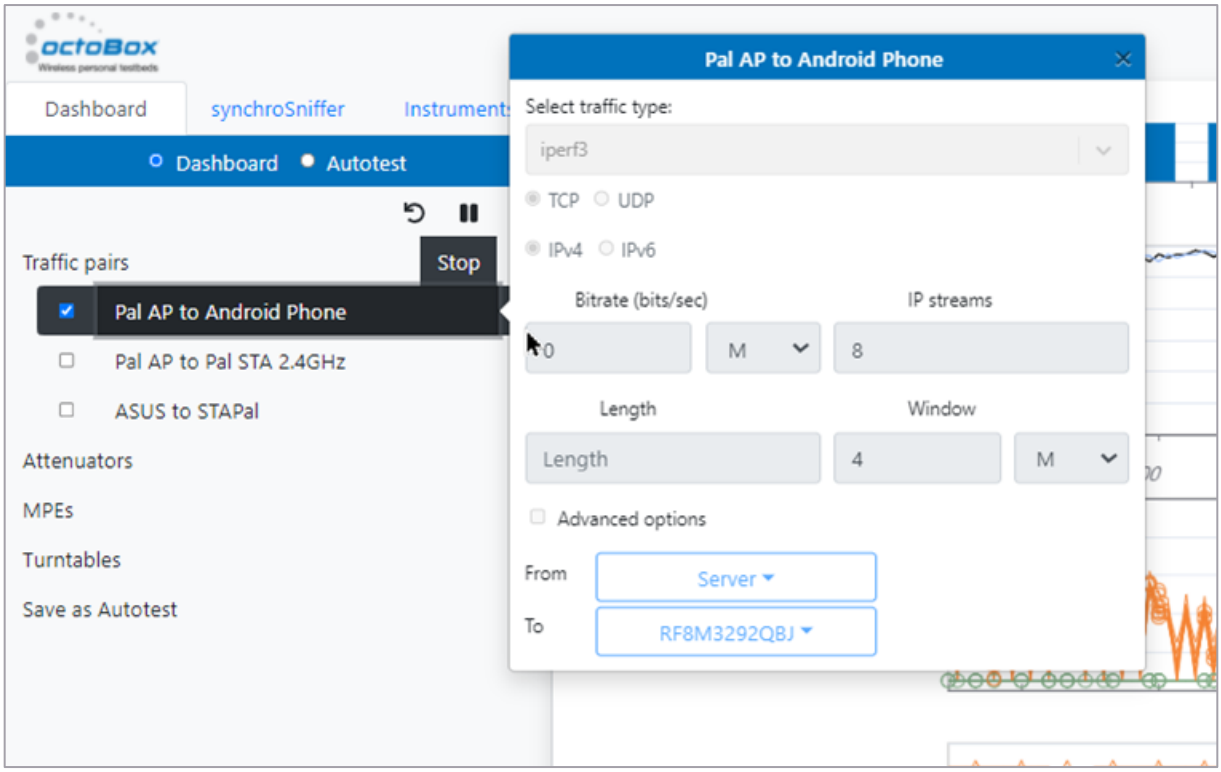

Figure 3. Octobox Software in multiPerf mode