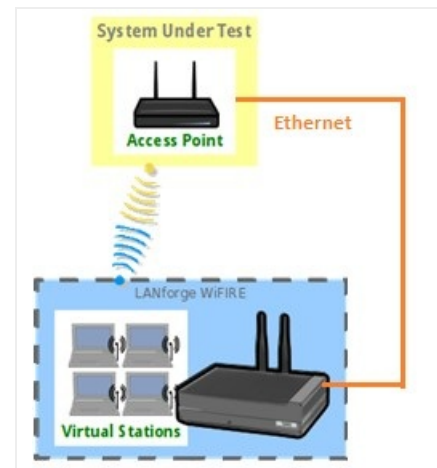


Testing AP Long-Term Performance with the AP-Auto Automated Test Suite

Goal: Run an AP-Auto test for an AP using the LANforge CT523c or similar system in order to test how well the AP can long-term traffic. The AP-Auto test is similar to the TR-398 test, but is designed to be functional with a minimum amount of test equipment. A 2-radio LANforge system and DUT is all that is required to run these tests.

In this test scenario, the LANforge CT523 is used to create stations and run the Long-Term test. This example assumes you have some experience with Chamber View, and that you have a LANforge system and a DUT AP. The AP and LANforge may be in chambers, but that is not required. This feature requires LANforge version 5.4.2 or higher.



1. If you haven't setup or performed AP-Auto tests on your LANforge system, please refer to the [AP-Auto Test Suite Setup](#) guide for quick setup.
2. Running the AP-Auto Long-Term Test:
 - A. Open the *AP-Auto Test* window.

AP Automated Test (cv-inst-0)

Settings | Advanced Configuration | Stability Configuration | Mode/NSS/BW Configuration | Pass/Fail Configuration | Report Configuration | Report-1 | Report-2 | Report-3

Selected DUT 2G: 1 TR-398_DUT asus-ax11000-2 f0:2f:74:57:db:b0 (1) | PSK DUT: NA | Enterprise DUT: NA

Selected DUT 5G: TR-398_DUT asus-ax11000-5 f0:2f:74:57:db:b4 (2) | NA | NA

Selected DUT 5G-B: NA | NA | NA

Upstream Port: 1.1.3 eth3

2.4GHz Radios 2 | 5GHz Radios | Dual-Band Radios

1.1.4 wiphy0 | 1.1.6 wiphy2 | 1.1.6 wiphy2

Tests to run:

☐ Basic Client Connectivity ☐ Throughput vs Pkt Size

☐ Multi Band Performance ☐ Capacity

☐ Stability ☐ Band-Steering

☐ Multi-Station Throughput vs Pkt Size ☒ Long-Term 3

Estimated Test Duration: 1 h

Test is complete. Start Skip ☐ Another Iteration ☐ Pause Cancel

B. In the AP-Auto *Settings* Tab:

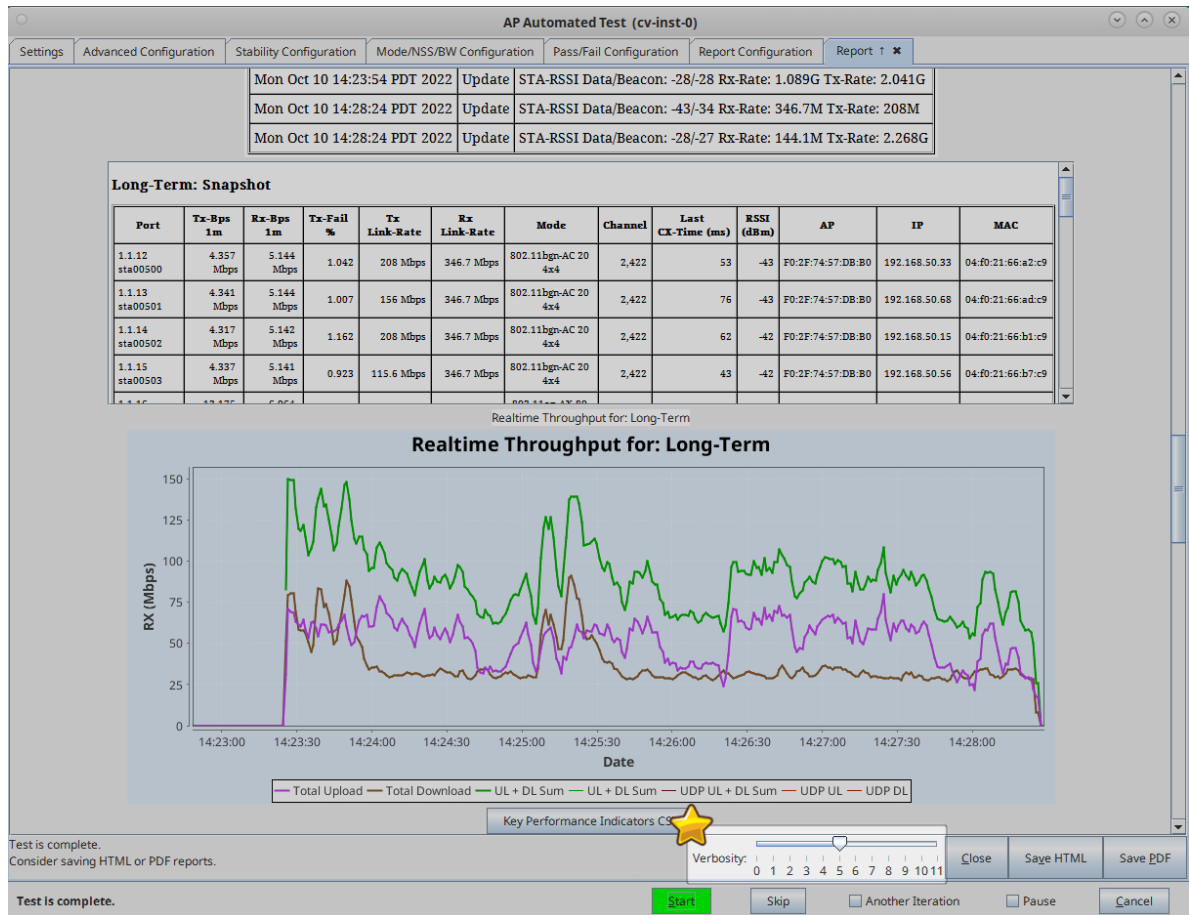
- A. Select the **DUT 2G** and **DUT 5G** SSIDs. This test requires that Open or PSK SSIDs are filled out.
- B. Select the LANforge radios to be used in this test. You need at least one 2.4Ghz radio and one 5Ghz radio for full functionality.
- C. At the bottom, select the **Long-Term** test checkbox.

C. Your *Advanced Configuration* tab should look similar to the following:

The screenshot shows the 'AP Automated Test (cv-inst-0)' window with the 'Advanced Configuration' tab selected. The interface includes several tabs at the top: Settings, Advanced Configuration, Stability Configuration, Mode/NSS/BW Configuration, Pass/Fail Configuration, and Report Configuration. Below the tabs are buttons for 'Show Config', 'Import Config', 'Save', 'Load', and 'Delete'. The 'Save' button is set to 'DEFAULT'. The 'Load' and 'Delete' buttons are also set to 'DEFAULT'. There are checkboxes for 'Auto-Helper' (checked), 'Skip 2.4Ghz Tests', 'Skip 5Ghz Tests', 'Skip Dual-Band Tests' (checked), 'Skip 5Ghz-B Tests' (checked), and 'Skip Tri-Band Tests' (checked). The 'IP ToS' is set to 'Best Effort (0)' and 'Multi-Conn' is set to 'One (1)'. There are checkboxes for 'Use BSSID' (checked) and 'Set Radio TxPower to Default' (checked). The 'Loop Iterations' are set to 'Single (1)'. The '2.4Ghz Station Count' is set to '16', '5Ghz Station Count' is set to '16', 'Dual-Band Station Count' is set to '4', '5Ghz-B Station Count' is set to '16', and 'Tri-Band Station Count' is set to 'Default (64)'. The 'Duration' is set to 'Default (20 sec)'. A red box labeled 'D' highlights the 'Long-Term' settings: 'Long-Term Download Rate' is set to '85%', 'Long-Term Upload Rate' is set to '85%', 'Long-Term Duration' is set to '6h', 'Long-Term Graph Interval' is set to '30 (30 sec)', and 'Long-Term Station Count' is set to 'Small (32)'. Other settings include 'Hunt Retries' (Default (1)), 'Maximum Hunt Iterations' (100), 'Packet Loss Threshold' (1% (1%)), 'Frame Sizes' (64, 128, 256, 512, 1024, MTU), 'Capacity Amounts (stations)' (1, 5, 10, 20, 32), and 'Multi-Station Throughput Options' (UDP, TCP, Download, Upload). At the bottom, there is a status bar that says 'Test is complete.' and buttons for 'Start', 'Skip', 'Another Iteration', 'Pause', and 'Cancel'.

D. Highlighted are the Long-Term test settings. Note, stations are brought up on multiple bands concurrently in this test and so the **Long-Term Station Count** value will determine the sum total of stations across all bands.

- E. When the configuration is complete, click the **Start** button (which will change to **Stop** once start is clicked) to start the test. An interactive report tab will be created and will be updated as the test runs.



- F. You can change the test result verbosity level by adjusting the **Verbosity** slider. Maximizing it will show all generated figures and data. The verbosity level also affects the length of the saved report.
- G. At the end of the test, click the **Save HTML** button to save an HTML report and generate the PDF. The PDF file will be linked from the HTML page. You can also click **Save PDF** and the browser will be directed to open the pdf file directly. Please see this [example AP-Auto Long-Term Report](#).