ConnectedHome

ConnectedHome is a dashboard for broadband customers to quickly see at-a-glance the performance of their own home broadband.

**Router tests**

**Speed, latency and loss**

SamKnows monitors your broadband connection by frequently running scheduled tests between the router and the nearest test server.

These tests check the quality of your internet service by measuring Download speed, Upload speed, Latency, and Packet Loss. These core metrics are displayed as an average along the top. When selected, their performance is displayed as a time series chart below, so you can see changes to internet performance over time.

**Disconnections**

Disconnections is useful for troubleshooting when and how long your internet has been disconnected. The test agent constantly checks to see if your internet connection active. If there are any disconnections, they are plotted on this chart.

The chart does not update while the agent is offline, but will automatically update once there is a connection.
**Instant tests**

An instant test measures five metrics including Download speed, Upload speed, Latency, Jitter, and Packet loss. Measurement results are streamed in realtime back to SamKnows One and displayed on the dashboard.

If your test agent is already performing a scheduled test you will get a notification as only one test can be run at a time. Give it a minute, then try again.

**Skipped schedules tests**

Typically test agents are scheduled to test the internet connection every hour, although custom test schedules can be configured.

Sometimes scheduled tests are skipped to avoid negatively impacting the users internet experience and impairing our measurement results.

By only testing when the connection is idle we can eliminate any unknown factors such as background network activity to ensure the tests results are accurate and comparable. For this reason limits are set for network activity and CPU usage. If these limits are exceeded the test will not run.

**Additional charts**

A SingleView user can customise their dashboard by adding charts for application tests of popular services, or other metrics such as DNS response time, or Jitter.

Select the +Add charts link by the data selector to bring up the optional charts wizard.
RealSpeed tests

Run a RealSpeed test instantly from your browser. See how many previous tests have run in the selected date range.

Mobile device limits

Due to hardware and software configurations, mobile devices have a maximum speed limit. Often these limits can be below the available speed you’re trying to test, obscuring the real speed. These figures aren’t published or readily available, so SamKnows uses machine learning to sift through our vast dataset of previous tests to create a database of device limits. We need a minimum sample of results before we can display a device limit.

Each device used for a RealSpeed test is listed and the expected device limitation displayed as a range. We flag each device which looks like its speed is being limited by the hardware, not the available speed on the network.

RealSpeed tests

Wi-Fi is the most popular method of connecting internet enabled devices in the home. New Wi-Fi standards promise extra speed at the expense of less coverage and penetration through solid walls. It’s not widely understood that the available speed at your router isn’t the same as the available speed on your device. We have created this test to show the difference.

The dashboard shows a chronological list of all of the RealSpeed tests and results. Information about the tests include the device name, browser type, when the test was run, tests results from the router and device, and if the device limit was reached.