SamKnows
Whitebox - Fixed
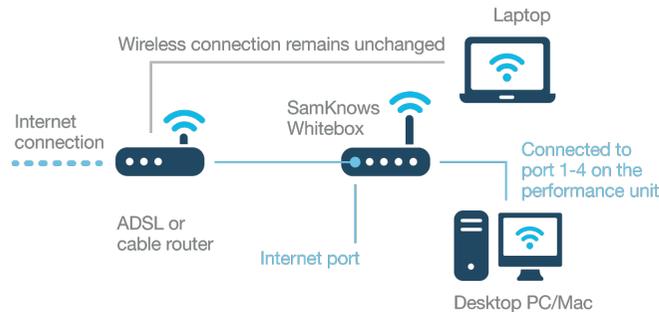**For more information contact**
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Overview

SamKnows offers hardware probes known as "Whiteboxes" for the purpose of accurately measuring end-user broadband performance.

A key feature of the Whitebox solution is that it can filter out inconsistencies caused by home network cabling, WiFi, or old consumer equipment that web-based testing systems are not able to detect. The Whitebox also allows 24x7 testing thereby building a comprehensive view of network performance.

The Whiteboxes execute a series of tests over the broadband connection they are connected to. The results of these tests are securely transmitted to hosted backend infrastructure for processing and presentation through a web interface.

Data subscribers are able to view customizable performance reports in real-time using the SamKnows dashboard. Customers who have a Whitebox device have automatic access to their broadband report cards through email and smartphone.

Core Features

Cross Traffic Check

In order to determine when it is safe to execute tests, the end user's traffic levels are monitored continuously both for wired and wireless connections.

Remote Update

The Whitebox software suite has the ability to auto-update itself, downloading updated binaries and testing schedules.

Measurement Capabilities

The Whitebox provides comprehensive measurement capabilities as listed below:

- Download and upload throughput
- Web browsing
- Video Streaming
- UDP latency
- UDP packet loss
- Availability
- Voice over IP
- DNS resolution and failures
- ICMP latency and packet loss
- FTP Throughput
- Peer-to-peer
- Email Relaying

The majority of the measurements are run against SamKnows's network of test nodes. These are dedicated servers either on-net (on the local ISP's network) or off-net (on the public Internet). Some measurements will also execute against real applications hosted on the Internet, mimicking their behaviour and measuring key performance variables.

Specification

Whitebox 3.0 (SK-TL-WDR3600)

Measures broadband speeds of up to 500Mb/s

Connectivity	4x 1000Mbps LAN interfaces 1x 1000Mbps WAN interface
Wireless	2.4GHz and 5GHz radios, supporting 802.11a/b/g/n wireless
Power	Single DC power (12V @ 1500mA) Power draw: 4W
Physical Dimensions	Dimensions: 243 x 160.6 x 32.5 (mm) Weight: 1.1kg

Whitebox 1.0 (SK-TL-WR741ND)

Measures broadband speeds of up to 100Mb/s.

Connectivity	4x 100Mbps LAN interfaces 1x 100Mbps WAN interface
Wireless	Single 2.4GHz 802.11bgn radio
Power	Single DC power (9V @ 750mA) Power draw: 4W
Physical Dimensions	Dimensions: 174mm x 118mm x 33mm Weight: 500g