

NETSCOUT™

Guardians of the Connected World



iPerf Performance Testing Made Simple

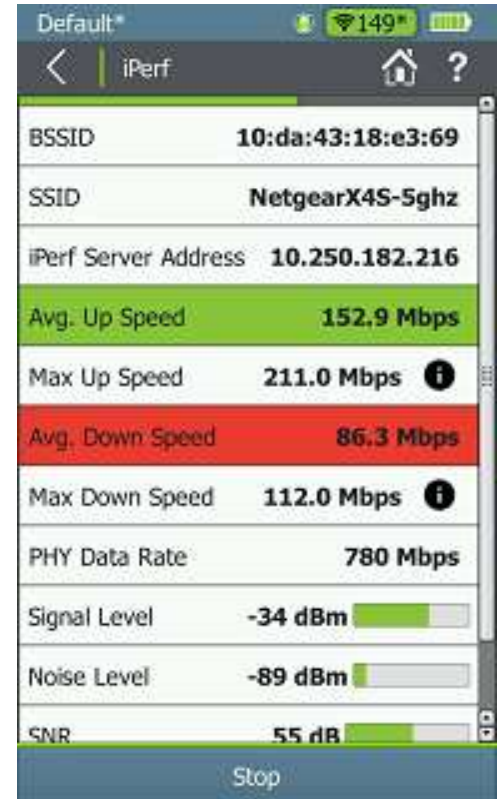
*Presenter: Julio Petrovitch
NETSCOUT, Technical Marketing Engineer*



AirCheck G2 – Performance Testing

User complains it's slow? Test it yourself

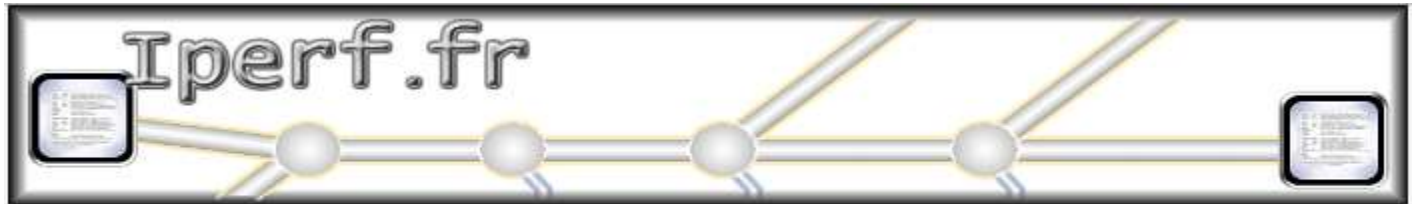
- Prove out performance the wireless is providing
 - Test “wireless is slow” complaints
 - Verify there's enough bandwidth for new/existing applications
- Uses the widely adopted industry standard iPerf test tool
 - iPerf version is 3.x
- Test is initiated after connecting to an AP
- Results are shown for uplink and downlink traffic



AirCheck G2 – Performance Testing

So what is iPerf?

- Performance testing tool for networks
 - Open source & freely available, so has wide industry adoption
- Allows for Transmit Control Protocol (TCP) or User Datagram Protocol (UDP) packet flows
- Client & Server topology
 - AirCheck is the client, need an iPerf server somewhere in the network



iPerf - The ultimate speed test tool for TCP, UDP and SCTP

New Test Accessory Makes iPerf Easy

An iPerf server in your pocket

- Our new Test Accessory for the AirCheck G2 takes all the trouble out of setting up an iPerf server
 - Test Accessory is managed by Link-Live
 - Test Accessories are discoverable and will automatically list on the AirCheck G2 iPerf server selection screen
 - Can be powered via PoE or with AA batteries.



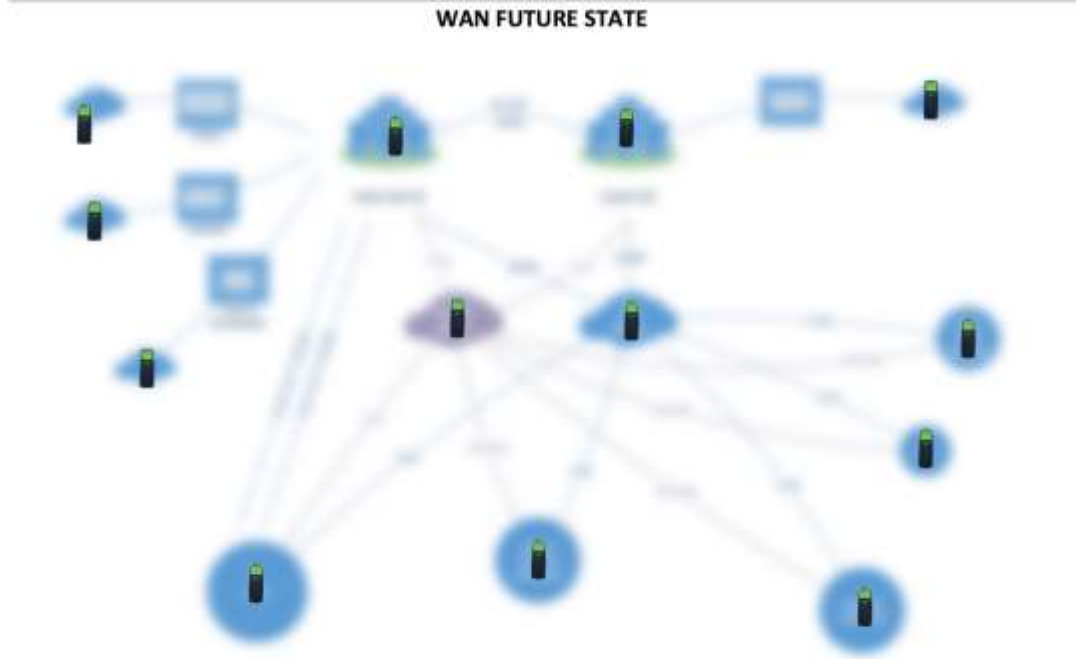
Test Accessory Discovery Demystified

- Automatic network discovery is performed:
 - On the currently connected wireless subnet
 - On the last connected wired subnet
 - On any user configured additional search subnet
- Link-Live discovery
 - Returns all known Test Accessories in the current Org
 - AirCheck G2 will test to see if it can 'reach' a Test Accessory and will grey out ones it can't get to



Test Accessory Plan

- Embedded at strategic locations
 - Named in Link-Live
 - Test to edge, Gateway, or application



AirCheck G2 – Performance Testing

iPerf configuration

- Protocol: Select TCP or UDP
- Port: Select port for iPerf traffic (default is 5201)
- Duration: The amount of time spent on the iPerf test, note that both an upstream and a downstream test is performed
- Accessory Battery Type: Impacts the accuracy of the battery meter
- Thresholds: Jumps the user to the iPerf area in the Thresholds screen

The screenshot shows the 'iPerf Test' configuration screen on an iPhone. The status bar at the top indicates 'Default', signal strength, Wi-Fi, 40% battery, and a home indicator. The screen title is 'iPerf Test'. The configuration options are:

Protocol	UDP
Port	5201
Test Duration (s)	20
Accessory Battery Type	Alkaline
Thresholds	

At the bottom, there are two buttons: 'Cancel' and 'Apply'.



AirCheck G2 – Performance Testing



- First step: Run a connection test
 - Can't test wireless performance without first being connected
 - I can connect at the AP or the Network level, option will be there regardless
 - Then click on iPerf Test

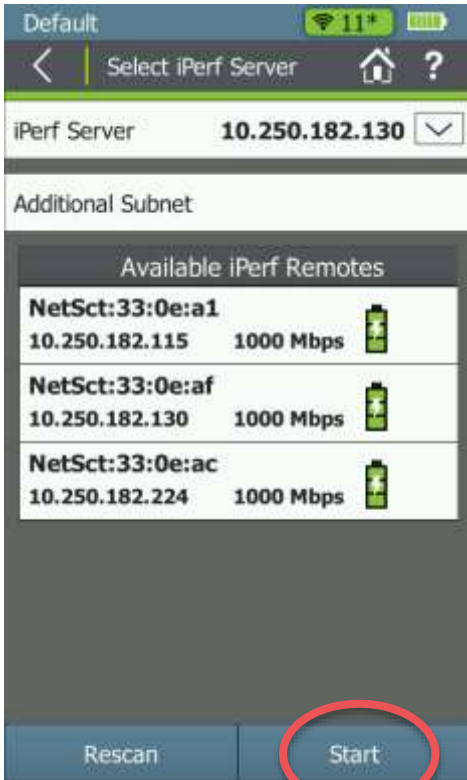


AirCheck G2 – Performance Testing



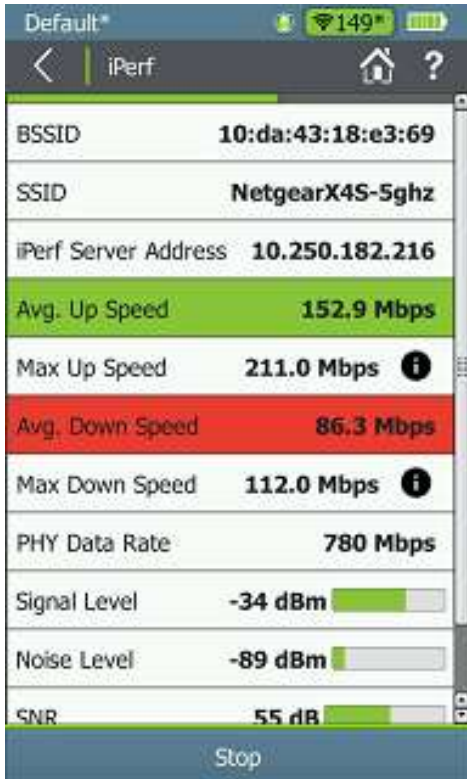
- First step: Run a connection test
 - Can't test wireless performance without first being connected
 - I can connect at the AP or the Network level, option will be there regardless
 - Then click on iPerf Test

AirCheck G2 – Performance Testing



- Second step: Pick my iPerf server
 - Can be a standalone server or a Test Accessory
 - Tap on iPerf Server to manually enter an IP address
 - Test Accessories are listed at the bottom of the screen
 - Tap on a Test Accessory to automatically populate the server IP information with that Test Accessory
 - Tap on Start to begin the test

AirCheck G2 – Performance Testing



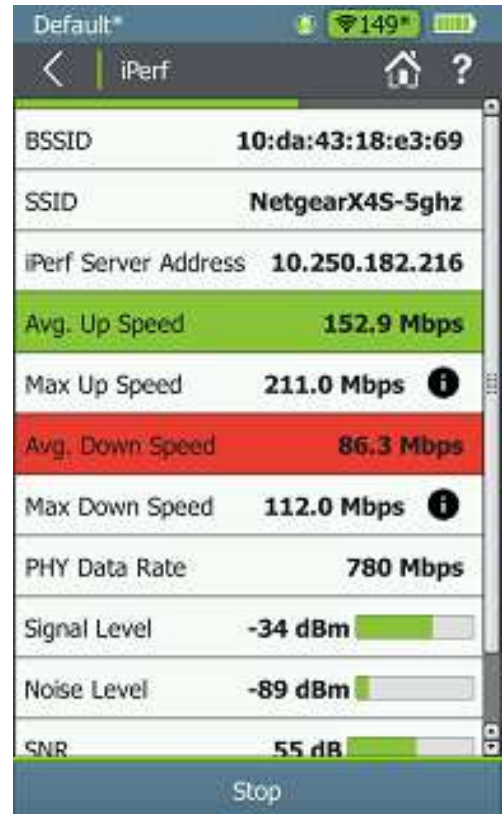
- iPerf results now shown
 - Both Uplink and Downlink tests performed in sequence
 - Results will be color coded against my pass/fail thresholds
 - PHY rate, Signal level, etc. will also be shown to help give context to poor results

Conclusion

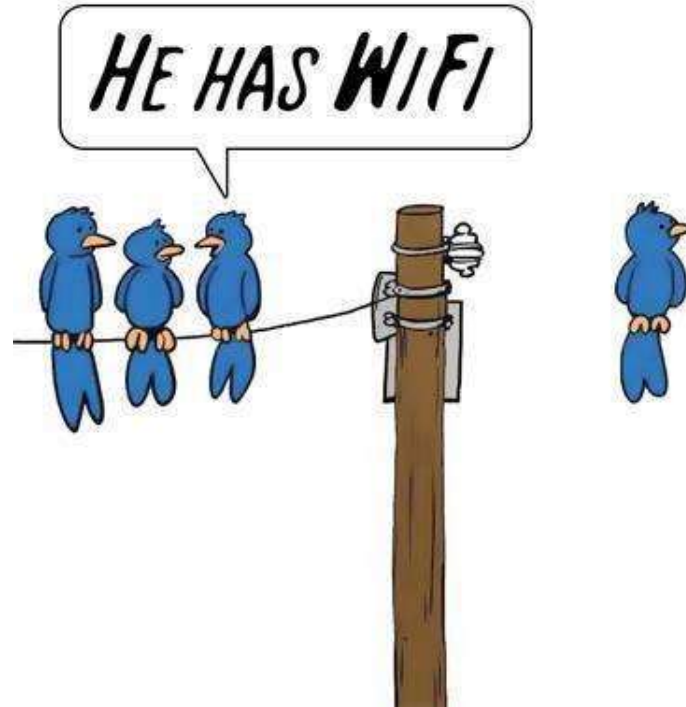
It is now easier and faster than ever to verify that your wireless network can support the bandwidth required for Voice over Wi-Fi, Video Streaming, Data Transfers and more. Just connect to the network, tap the Test Accessory you want to use and hit Start.

Performance testing is powerful: See your network performance at a glance

- Avg. speed both up and down
- Pass/Fail indications against expected throughput
- PHY Data rate that the AirCheck is experiencing



Questions?



THANK YOU

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