Datasheet: OneTouch™ AT G2 Network Assistant

Reduce access network deployment project risk and troubleshooting time

More than 70% of IT organizations lack standardized processes to validate deployment and solve problems. This results in more than 1 hour (average) to resolve problems. In addition, 40% of IT tickets are not solved the first time and require escalation. Intermittent problems can take twice as long to resolve.

By automating and standardizing the validation & troubleshooting process, the OneTouch AT Network Assistant empowers novice network technicians to validate performance easily, solve more problems faster, and escalate issues more efficiently – allowing more IT projects to be completed on time and with quality, freeing up engineer's time.

Empower IT professional teams to effectively validate, and troubleshoot Ethernet and Wi-Fi access networks

- **All-in-one:** a handheld tester combining infrastructure, network service and end-to-end path performance measurement in one tool
- **Versatile:** The OneTouch AT has a modular design: select the G2 module that has dual 10/100/1G copper/fiber Ethernet test ports and 802.11a/b/g/n/ac Wi-Fi radio, or the 10G module that has 100M/1/10G copper and fiber Ethernet test ports.
- **Standardize:** Network engineer can pre-program AutoTest profiles for field technician to choose that automatically run a suite of test with the press of a button, enabling identification of the most common problems in about a minute
- **Authoritative:** Measure end-to-end path performance prior and after the deployment of new services or network infrastructure to assess network readiness and post deployment to prove SLA compliance
- **Visibility:** Switched Ethernet and Wi-Fi discovery and analysis provides visibility and documentation into connected devices, key device properties and problems
- **Collaborative:** Engineers can take full remote control of the OneTouch to collaborate with on-site technicians and speed isolation of issues
- **VoIP ready:** The G2 Module troubleshoots desktop SIP/SCCP based VoIP problems in real-time with inline call monitoring, logging and scoring
- **Capture friendly:** Wired or Wi-Fi packet capture streamlines collaboration and escalation of the most complex issues. Capture wireline traffic using the G2 module's inline capture features avoids the need for SPAN port or TAP
- **Centralized Management:** The Link-Live.com cloud portal offers visibility to all of the test results and project progress from any NETSCOUT portable tools, LinkSprinter, LinkRunner AT, AirCheck G2 and OneTouch AT, when the tester is dispatched for troubleshooting or validating network installation or change projects. Test results can be organized by project and recalled as baseline. User can also remote control OneTouch AT from the cloud and remotely update software of all OneTouch AT units claimed by their organization

OneTouch AT features

Versatile copper, fiber and Wi-Fi troubleshooting

Be ready for a broad range of troubleshooting scenarios with the handheld OneTouch AT G2 Network Assistant. The tester incorporates dual copper and fiber optic test ports to facilitate troubleshooting of 10/100/1000 Mbps twisted pair and 100/1000 Mbps fiber Ethernet networks. The dual ports simplify inline packet capture and VoIP monitoring by eliminating the need for mirror ports or taps. For troubleshooting Wi-Fi networks the OneTouch AT G2 tester incorporates an 802.11ac dual-band Wi-Fi radio with a 3x3 antenna. When connected to both wired and Wi-Fi networks the tester displays test results side-by-side on a single page to aid in problem domain isolation.

The OneTouch AT Network Assistant has a modular design. A 10G module is available for testing wired 100Mbps to 10Gbps Ethernet switch port and link performance at up to 10Gbps rate.

All-in-one testing from the patch cable & Wi-Fi to the cloud

When validating and troubleshooting the access network, one needs to test from where the client device is connected to the network—where the device could be a PC, tablet, smart phone, IP phone, printer, POS terminal, industrial equipment controller, a medical imager etc. The OneTouch AT can prove that the network is good —by emulating the client device and measuring network performance. It measures, analyzes and documents the performance of each the critical network elements: the network cabling, the delivery of Power over Ethernet (PoE), the connection to the nearest switch, the connection to the nearest access point, and the performance of key network services and server-based applications in the intranet, and cloud or internet.

Standardized network validation and troubleshooting

Use the intuitive touch interface and the Setup Wizard to create test profiles, where a profile is a set of tests, tailored to specific networks, services, and applications. Build profiles to accommodate different types of users, devices, locations or technologies. Profiles can be very simple with just a few tests or advanced with dozens of tests. Once created, profiles can be saved for quick and easy reuse. Create a library of standardized profiles to elevate the troubleshooting know-how of the entire network support staff. Share profiles with other OneTouch AT users. Use the profiles to establish best practices for consistent, faster, more productive troubleshooting and network acceptance testing.

Automated suits of test with pass/fail analysis

Test everything defined in a profile automatically with the one button AutoTest. The AutoTest progresses from the physical layer of the network through the wired and wireless infrastructure, to network services and user-defined applications. Clear pass/fail and warning indicators highlight potential problems. A top-level pass/fail indicator provides the overall AutoTest status at a glance.

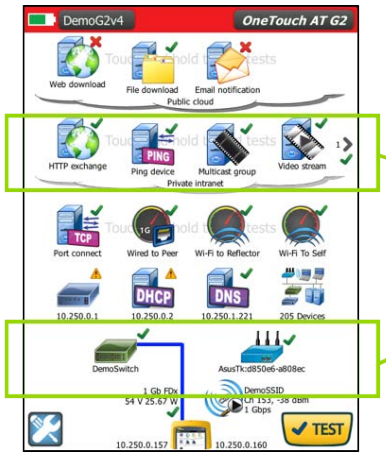

Figure 1. The AutoTest provides a comprehensive measurement of network performance from the end user point-of-view, from cable to services and applications (Test result from OneTouch AT with G2 Modules for both Wired and Wi-Fi network shown)

User defined Performance Tests

Connectivity & response time test to application/servers, and performance test to end-point(s) in all three network layers: the local broadcast domain, the private intranet and the public cloud (Internet).

Client network Analysis

Cable & nearest switch test, Wi-Fi network accessibility test, Wired and Wi-Fi access network/device discovery & network service tests: DHCP & DNS & 802.1x

Centralize Cloud-based management

Organizations can claim their OneTouch AT units to the Link-Live.com cloud portal. Claimed units will be visible from the cloud portal as long as they are connected to the internet. They can be remotely managed when and where convenient using a smart device through its web browser. Users can upload test results, download latest software and test profiles, and remote control their OneTouch AT. Users can view and analyze test result on the cloud portal.

Centralize report management

Link-Live.com supports storing and viewing of test results from other NETSCOUT handheld network test products, such as LinkSprinter, LinkRunner AT, and AirCheck G2. After each test, test results and reports from these test units can be exported and stored to Link-Live.com. A user can setup such that an email will be sent to the operator of the OneTouch so that he can enter comments, such as test location, and/or upload picture(s) of the test environment. Multiple parties can access the Link-live Cloud Portal over the web at anytime from anywhere using a smart device or PC via a web browser. Free-string match search, and filter condition make it easy to locate the test report(s) of interest by text in comment or the test result.

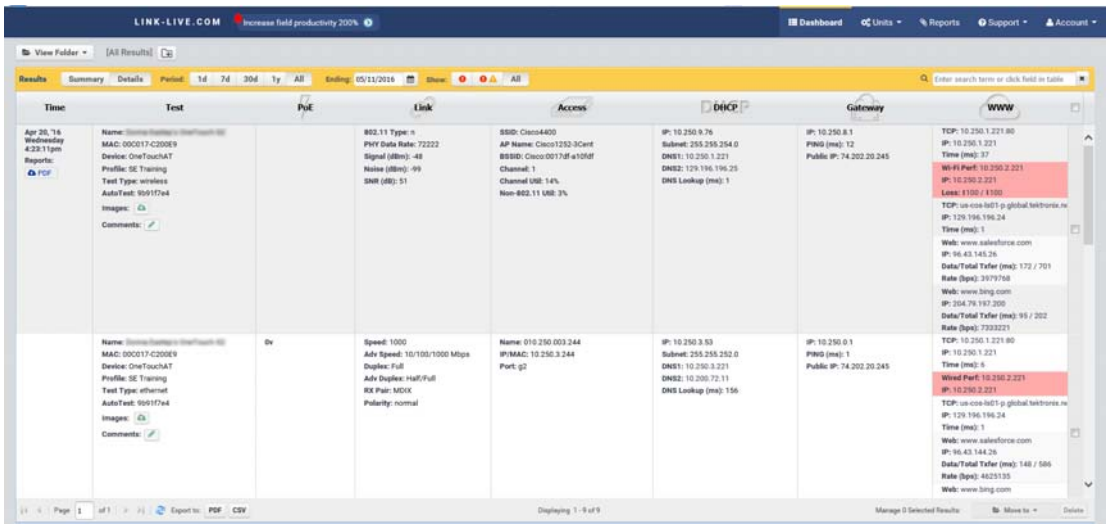

Figure 2. Link-live consolidate test results from OneTouch AT and other NETSCOUT Handheld Network Test products.

Remote visibility, control and file access

Use the built-in RJ-45 management port or optional USB Wi-Fi adapter to remotely control the OneTouch AT and access saved files. Any action that can be performed directly on the OneTouch AT using the touch screen can be performed remotely using a PC, laptop, tablet or smart phone. Minimize the time, expense and inconvenience of traveling to the client location where the problem was reported. Webcam support enables live, remote viewing of the physical environment near the tester. Remote control of units via the Cloud Service also allows traversal of NAT devices, which is very advantageous when troubleshooting from outside the office.

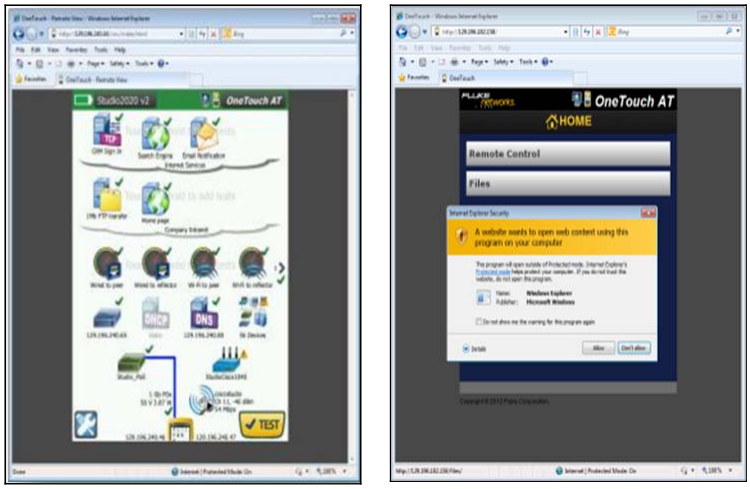

Figure 3. Remotely control the OneTouch AT and access saved files using a PC, laptop, tablet or smart phone

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Test Features

Copper and fiber optic cable testing

Troubleshoot cable performance quickly by measuring twisted pair cable wiremap and length. Use cable identifiers and tone probe to locate and identify cables. Measure the optical power received through fiber optic links. Verify the cleanliness of fiber optic connections by viewing connector end faces with the optional USB video probe.

PoE testing (Supported with OneTouch AT G2 Module)

Verify the successful delivery of PoE with the TruePower™ load test. Emulate an 802.3at (PoE+) class 1-4 powered device and measure power up to 25.5 watts. See the requested and received PoE class, the pairs used, the PSE type, measured PoE voltage unloaded and under load, and PoE power under load.

Wi-Fi and wired client devices connectivity testing

Understand how a client device connects to the wired infrastructure by testing link negotiation, identifying the nearest switch, and monitoring key switch port statistics. The OneTouch AT with G2 Module tests IEEE 802.11a, .11b, .11g, .11n and .11ac Wi-Fi networks. It shows understand how a client device connects to the Wi-Fi infrastructure by testing the link between the client and the nearest access point, identifying the AP name, channel and security type, observing the authentication and association process, and monitoring key AP and network statistics, including roaming details by AP. For Wired client, the OneTouch AT with G2 Module tests 10/100/1000BASE-T twisted pair and 100BASE-FX/1000BASE-X fiber optic Ethernet networks, while the OneTouch AT with 10G Module test RJ-45 test port for 100/1000/10GBASE-T and 1000 BASE-X SFP/10 G BASE-SR/LR SFP+ Ethernet over optical fiber Network.

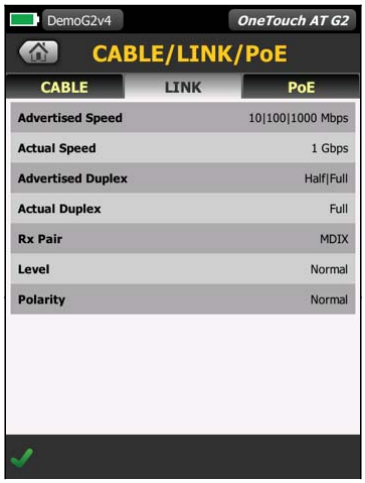

Figure 4. Test link speed over twisted pair and fiber optic links at rates up to 1Gbps and measure POE voltage with the G2 Module

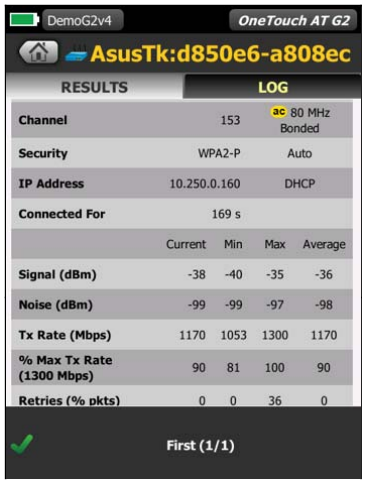

Figure 5. Test a Wi-Fi connection at up to 802.11ac rates and verify channel width, signal and noise level.

Network services testing

Test DHCP server responsiveness. Identify the wired and Wi-Fi DHCP servers and view the offer and acceptance timing and the lease information. Test DNS server responsiveness. Identify the wired and Wi-Fi DNS servers and view the DNS lookup time. Also, determine if a second DHCP address is being offered. If unexpected or is a potential rogue server, use the path analysis tool - a layer 2 and layer 3 trace route - to track down the device to mitigate a problem situation.

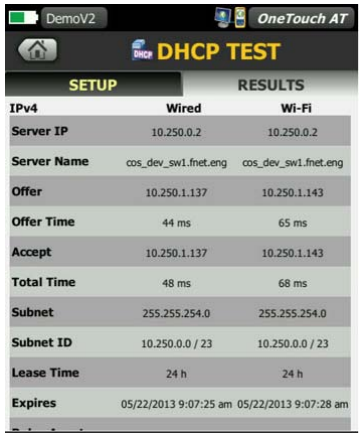

Figure 6. Detailed breakdown of DHCP provisioning and response performance

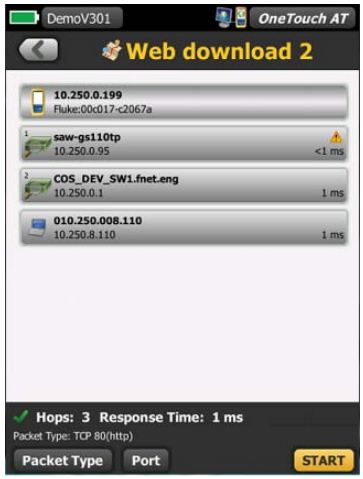

Figure 7. Path Analysis showing the path through switches from OneTouch to a client.