

EtherScope™ nXG v1.1 Release Notes

December 2019

These EtherScope™ nXG version 1.1 Release Notes briefly describe the New Features and Bug Fixes included in the release.

[Go to Software Upgrading Instructions on page 11.](#)

Version 1.1 New Features

AutoTest App

- **VLAN Monitor** – A new VLAN card and screen in Wired Profiles shows the list of VLAN-tagged traffic detected through the switch port.

Wired Profile
9 tests

56.23 V
Class: 0 13.00 W

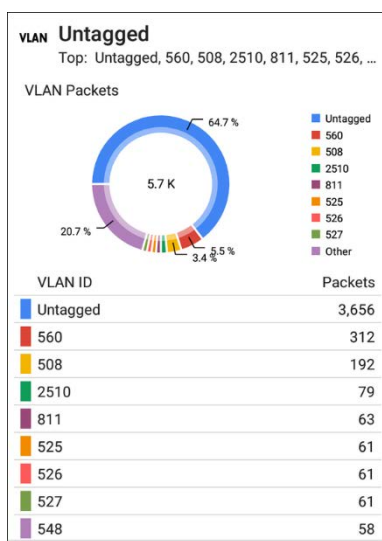
100M/1G/2.5G/5G
RJ-45 HDx/FDx

802.1X PEAP MSCHAP V2
User: qatest1

VLAN Untagged
Top: Untagged, 508, 560, 2510, 525, 526, 1

COS-DEV-SW1.NetAlly.com
Port: FiveGigabitEthernet1/0/19

DHCP 10.250.3.10



- **802.1X Authentication** is now supported, with EAP Type selection, username, and password entry under Wired Connection Settings for Wired Profiles.

802.1X
Enabled

EAP Type
PEAP MSCHAP V2

Username

Password

Alternate ID

AutoTest

802.1X PEAP MSCHAP V2
User: qatest1

Elapsed Time: 437 ms

Result Codes
Success

[CONNECT LOG](#)

- **Auto-negotiation up to TLS 1.2** is supported.

- **Enhanced Discovery Protocol Analysis** and nearest switch identification is displayed with more detail in Wired Profile tests.

COS-DEV-SW1.NetAlly.com
Port: F11/0/42

Status:
Network traffic seen in 196 ms

Nearest Switch: [COS-DEV-SW1.NetAlly.com](#)

Port: F11/0/42
Description: Test Port
VLAN ID: 500
Voice VLAN ID: 3333
IP Address: 10.250.0.2
MAC Address: Cisco:7802b1-b0caaa
Location: COS-DEV Lab Rack S2
Contact: Erik_E
Model: cisco C9300-48UN
Type: CDP (First Seen)
Last Seen: 3:39:11 PM

Switch: [COS-DEV-SW1.NetAlly.com](#)

Port: F11/0/42
Description: Test Port
VLAN ID: 500
IP Address: 10.250.0.2
MAC Address: Cisco:7802b1-b0ca80
Model: Cisco IOS Software [Fuji], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 16.9.3,
Type: LLDP
Last Seen: 3:39:12 PM

- **Connection Log Uploading** – Attach Connection Logs to Wi-Fi and Wired Profile results sent to Link-Live.com.

DEMO_KIT_SW_3
Port: g4

DHCP 172.24.0.8
105 ms

DNS dns.google
14 ms

172.24.0.1
<1 ms, <1 ms, <1 ms

Connect L Save to Link-Live

3:59:45.654 PM	Supplicant: PEAP_MSCHAP_V2
3:59:45.775 PM	Received EAP Fail
3:59:45.777 PM	Identity: qatest1
3:59:45.781 PM	Identity: qatest1
3:59:45.808 PM	NAK: GOT (4) EAP-MD5 WANT (25) EAP-Peap
3:59:45.822 PM	PEAP: Selecting Version: 0
3:59:45.824 PM	PEAP: Received EAP Start request, sending Client Hello
3:59:45.851 PM	PEAP: Received Server Hello
3:59:45.923 PM	PEAP: Server Certificate unverified:

- **Automatic Wi-Fi Profile naming** with the selected SSID makes Wi-Fi Profile set-up faster.

AutoTest START

TheFeed
6 tests

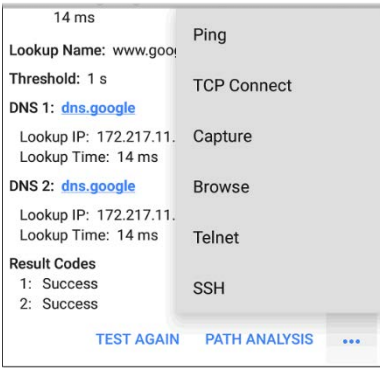
TheFeed
-46 dBm 130 Mbps Roams: 0

Channel 1
Utilization: 4 %

2001:558:feed::1
TheFeed

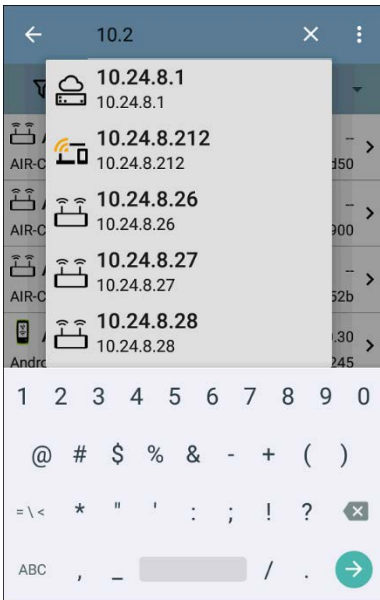
- **User-Definable MAC Addresses** for Wired and Wi-Fi test ports can be assigned in the testing apps' General Settings.

- **Telnet/SSH tool** – Start a Telnet or SSH session from Discovery, Wi-Fi, and AutoTest action menus.



Discovery App

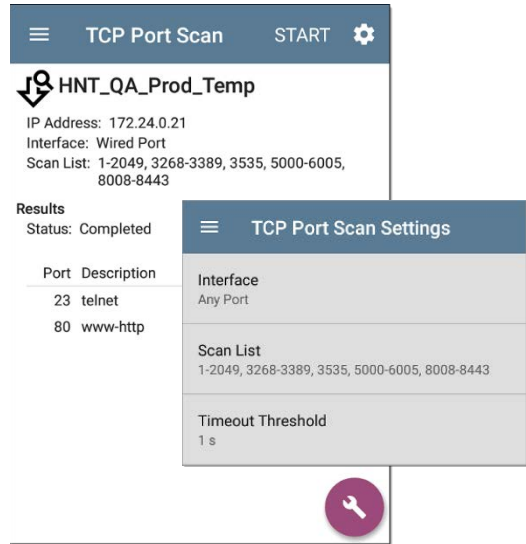
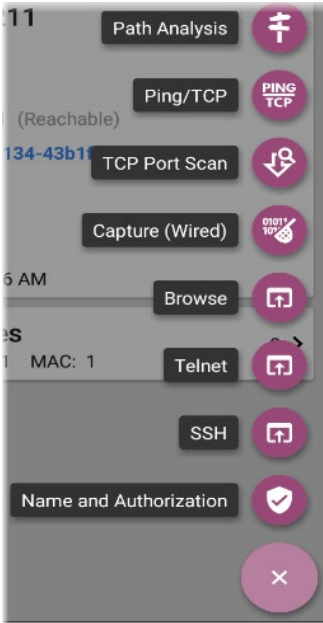
- **Discovery List Search** for IP address, MAC, or device name appears at the top of the main Discovery list screen.



- **Discovery Progress Notifications** in the top Status Bar indicate when the discovery process is complete.



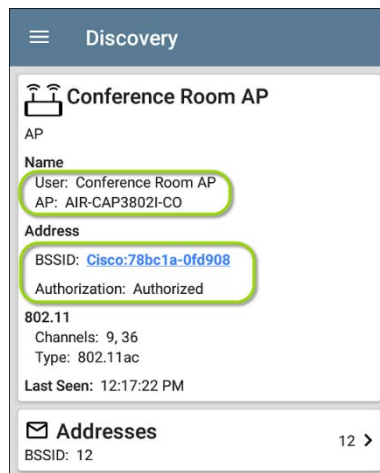
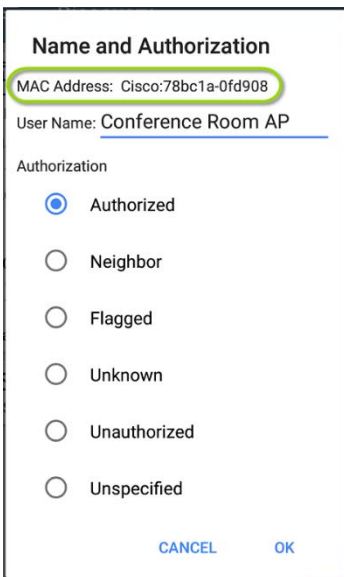
- TCP Port scanning is available from the Discovery floating action menu.



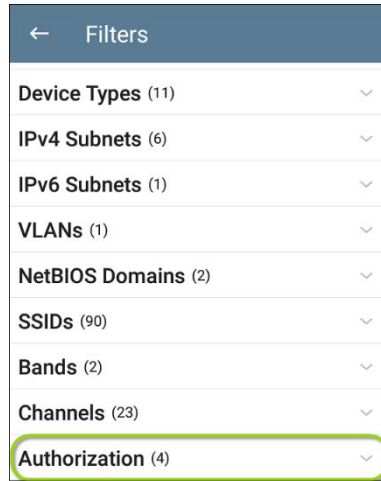
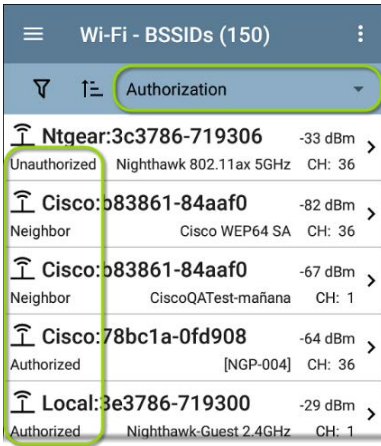
- Probing Wi-Fi Clients are no longer shown in the Discovery list.

Discovery and Wi-Fi Apps

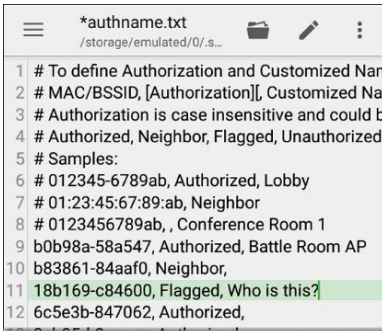
- Custom Device Naming – Assign a User Name to display on your EtherScope for any discovered device with a MAC address or BSSID. Custom Names have the highest priority of names associated with the MAC/BSSID.



- **User-Assigned Authorization** – Any device with a MAC address or BSSID can be assigned the following Authorization statuses: Authorized, Neighbor, Flagged, Unknown, Unauthorized, and Unspecified. **Sort** and **Filter** by Authorization in the Discovery and Wi-Fi apps.

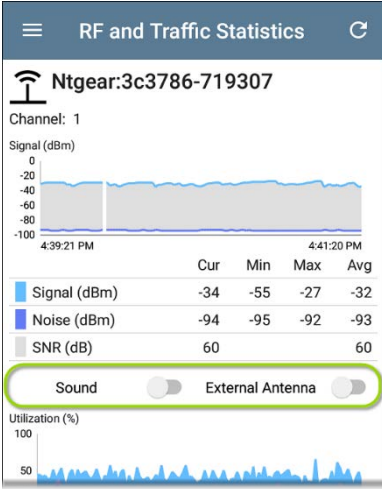


Names and Authorizations are stored in a user-editable file, **authname.txt**, in the internal **EtherScope-nXG > .settings** folder.



Wi-Fi App

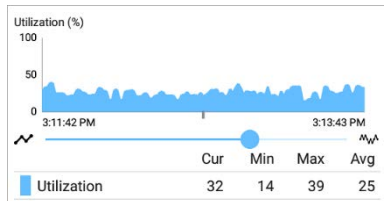
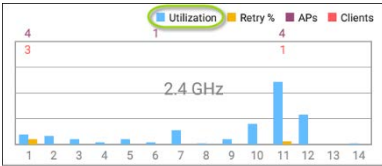
- **Device Locate Function** – Use the internal antennas, or external directional antenna (sold separately), signal strength, and the sound function to locate devices from the BSSID and Client RF and Statistics screens.



- **Refresh Wi-Fi** – Refresh Wi-Fi discovery results independently of wired discovery.



- **Combined 802.11 and non-802.11 Utilization** – In environments with Wi-Fi 6 (802.11ax) traffic, enable Combine Utilization in the General Settings to avoid Wi-Fi 6 OFDMA data traffic being classified as non-802.11. When enabled, utilization graphs show total Utilization.



Network Performance Test

- **Y.1564 EMIX Frame Sizes** – Tests a repeating size sequence consisting of a mix of 2 to 16 frame sizes. Eight standard frame sizes are available along with user-defined: 64, 128, 256, 512, 1024, 1280, 1518, and 9600 bytes.

Frame Size Mix

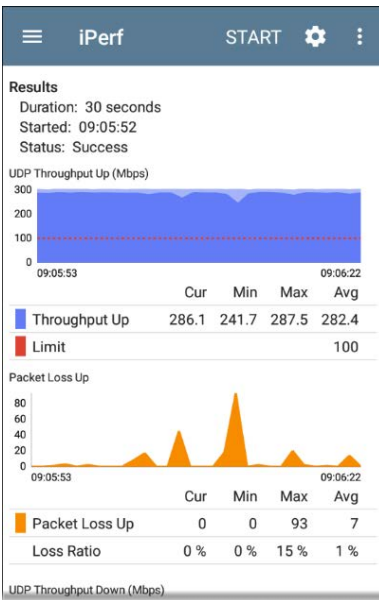
Mix:

User Size: Bytes

a 64	b 128	c 256
d 512	e 1024	f 1280
g 1518	h 9600	u User

iPerf Test

- **UDP Packet Loss Results and Graphs** are displayed in iPerf results.



- **NetAlly Test Accessories from Discovery and Link-Live** – In the new IPv4 Address setting, select Test Accessories found through the discovery process or claimed to the same Link-Live organization as the EtherScope nXG and actively connected to Link-Live.



Ping Test App

- **Ping Test Interval** – Set the time interval between Pings as low as 10 ms for a quick packet loss test.
- **Number of Tests Setting** – Select the number of Ping or TCP Connect tests to run.

Link-Live App

- **View Release Notes** for the latest firmware on the Update Software screen.
- **Upload Cable Test Results** to the Link-Live.com Results page.
- **Attach a Text File** to the most recent test results by sharing a text string.
- **Attach Images** to the most recent Performance, iPerf, and Cable Test results in addition to AutoTest results.
- **Save Results as JSON files Locally** – Users unable to access Link-Live.com can save results to the Link-Live folder on the EtherScope unit.

Link-Live.com

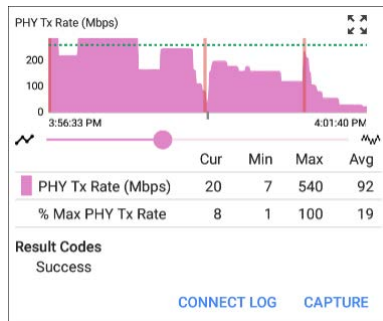
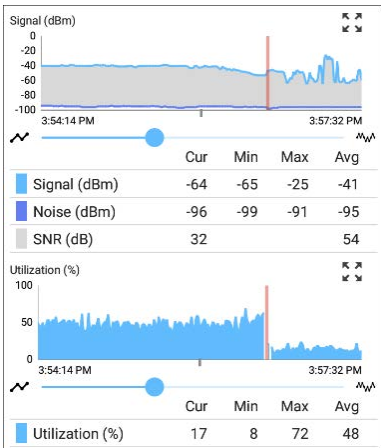
- A **Tutorial Video for the Analysis page** is available along with the previous videos under the **Support** menu in the left-side navigation drawer.
- **Connection Logs, Text Files, and Images** attached to AutoTest, Performance, iPerf, or Cable Test results appear on the Link-Live Results page.

Instructional Videos

Instructional YouTube Videos are now available from the Videos app. Swipe up on the Home screen to access the Apps screen. Hold and drag up an app's icon to add it to the Home screen.

Operation Enhancements

- **Zoom on Trending Graphs** – Use the new slider control to zoom in or out of the time axis on trended graphs in the following apps and screens:
 - AutoTest – Wi-Fi Profile Link and Channel Tests
 - Discovery – Interface Statistics
 - Wi-Fi – RF & Traffic Statistics for Channels, BSSIDs, and Clients
 - Ping/TCP – Ping Tests
 - Performance
 - Capture



- **Support for 10-G SFP+ based Twin-ax/DAC** has been added.
- **Fan noise** has been greatly reduced.

V1.1 Bug Fixes:

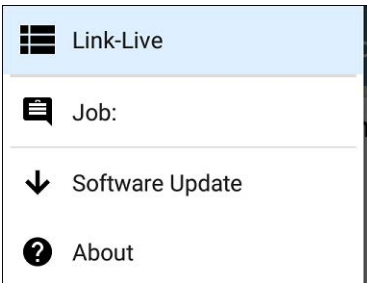
- Selecting Save-as for a capture file can result in a 0 byte file.
- AutoTest SNR measurement is significantly different from Wi-Fi app SNR measurement.
- Nearest Switch info only appears near the end of the AutoTest.
- Wi-Fi app continues to show results after disabling Wi-Fi test port.
- EtherScope reboots after changing AutoTest Settings and starting AutoTest.
- Path Analysis never completes.
- The unit reboots when performing an AutoTest with mismatched SFPs: LR on the tester end and SR on the switch end.
- Wi-Fi shows invalid MCS index in radio-tap header for some 11n/HT frames in capture and stats.
- EtherScope reboots in the presence of an 8-stream 802.11ax Access Point.

Upgrading to Version 1.1

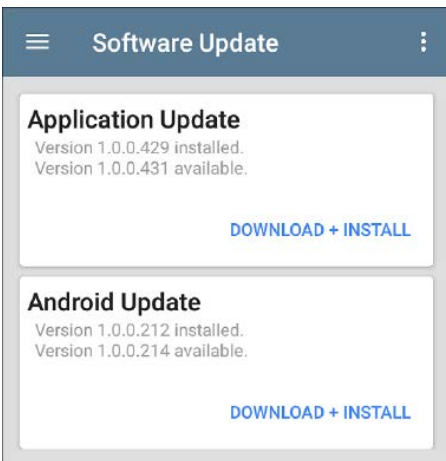
Updating Over the Air

If you have claimed your unit to Link-Live.com, we highly recommend following the Over the Air (OTA) Firmware Update procedure:

1. To check for available software updates at any time, open the Link-Live App from the Home screen.
2. In the Link-Live App, touch the menu icon or swipe right to open the left-side Navigation Drawer.



3. Touch **Software Update**. The Software Update screen opens and displays the version number of any available updates.



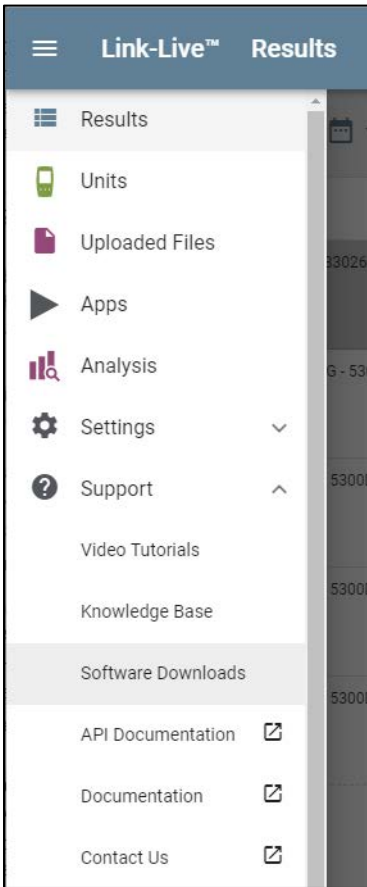
4. If both an Android and an Application Update are available, install the Android update first.
5. Touch **Download + Install** to update the Android operating system or the NetAlly applications. Each update must be installed separately.

The files download and install. When finished, the unit will restart.

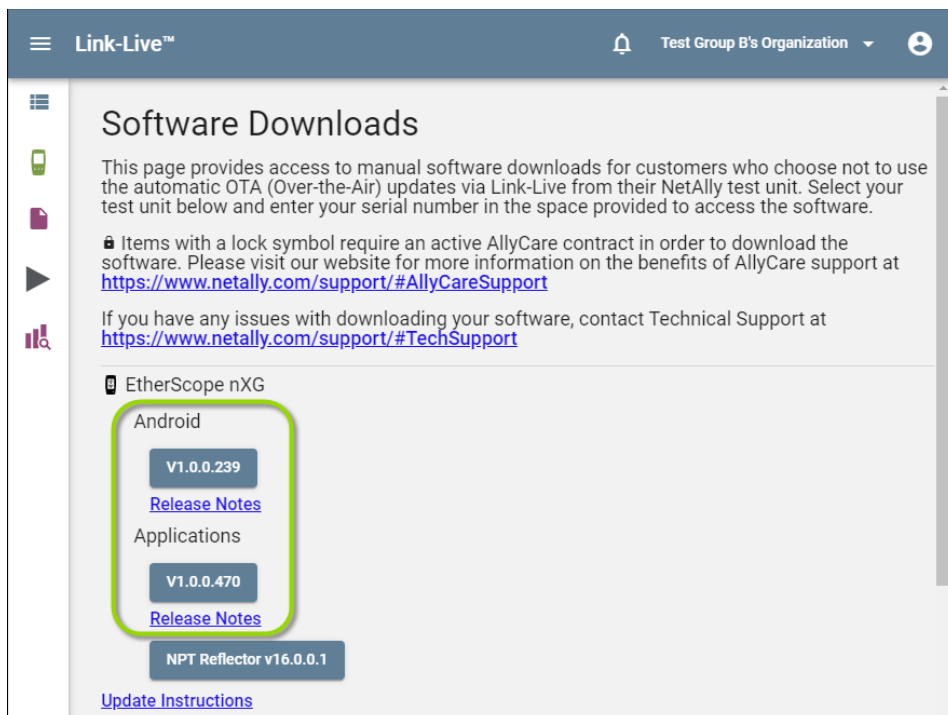
Updating Manually

If you have not claimed your unit to Link-Live, you will need to follow the manual update procedure below:

1. If you have not created an account on Link-Live Cloud Service, sign-up at <https://Link-Live.com>.
2. Open the left-side navigation drawer by clicking the menu icon, and select **Support > Software Downloads** (<https://link-live.com/downloads>).



3. EtherScope nXG includes both **Android** operating system and **Applications** software. If both update types are available, update the Android OS first.




Updating the Android OS Manually

1. Download the latest **Android** update (.zip) file, and copy it to a Micro SD card.
2. Power off your EtherScope unit.
3. Press and hold the volume up button and the power button at the same time to start up the EtherScope in Recovery Mode. Continue holding down the volume up button until the Recovery screen appears.
4. In Recovery Mode, use the volume buttons to highlight “**apply update from SD card,**” and use the power button to confirm the selection.
5. Use the volume buttons to highlight and the power button to confirm the correct update file on the Micro SD card.

The EtherScope will open the Updater, install the Android update, and then restart with the update installed.

Updating EtherScope Apps Manually

1. Download the latest **Application** (.apk) update file, and copy it to a USB flash drive or a Micro SD card.
2. In the Link-Live app, open the left-side navigation drawer, and select **Software Update**.

3. On the Software Update screen, touch the action overflow icon  at the top right, and select **Manual Update**.
4. Navigate to the USB drive or Micro SD card where you saved the update file.
5. Tap the update file to select it.

The EtherScope will open the Updater, install the .apk files for the NetAlly apps, and then restart with the updates installed.

Support

For knowledge base articles and FAQs for EtherScope nXG and Link-Live, please log in to your Link-Live account, and go to **Support > Knowledge Base** from the left-side navigation drawer.

For customer support, visit netally.com/support.