# EtherScope<sup>®</sup> nXG v2.0 Release Notes

#### June 8, 2022

These EtherScope<sup>®</sup> nXG version 2.0 Release Notes briefly describe the new features and enhancements included in the release.

Go to Software Upgrading Instructions at the end of this document

### **Version 2.0 Major New Features**

### Wi-Fi 6 and 6GHz (6E) Support

This release adds support for the new 802.11ax 2x2 tri-band test radio on the EXG-300 model of the EtherScope nXG. Because of the new radio you will now be able to:

- Gain visibility of Wi-Fi devices and utilization on the 6 GHz band.
- Perform Wi-Fi 6/6E site surveys with the AirMapper<sup>™</sup> app.
- Validate actual Wi-Fi 6/6E network connectivity and performance.
- Validate WPA3 and OWE authentication.

**Note**: This functionality is only available for EXG-300 models. Please contact your local NetAlly sales representative if you are interested in upgrading from an EXG-200 model to the EXG-300 model.

**Note**: To differentiate 6 GHz band channels, and 'E' suffix has been added to the 6 GHz channels.

#### **General Settings**

General settings allow you to select the bands and channel that the EtherScope will scan on allowing you to:

- Select the 2.4 GHz, 5 GHz, and 6 GHz bands.
- Select which channels to scan in each band
- Select if you only want to scan
  Preferred Channels (PSC) on the 6
  GHz band.



Additionally, each band have a custom offset.



May 6, 2022

#### **Connection Test Enhancements**

You will now be able to validate Wi-Fi 6/6E network connectivity when running an AutoTest. The improvements include:

- Connect to a network including auto band or band selection.
- Connect to Wi-Fi 6/6E SSIDs
- Connect using WPA3 Personal, WPA3 Enterprise, or OWE.
- Monitor connection and roaming on Wi-Fi 6/6E networks.



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≡ VZ Tests 🌣					Authentication			
Asus6E-6G -57 dBm 816	Mbps	Roam	ns: 0		S N	0	OWE Enhanced Open	
SSID: Asus6E-6G						$\bigcirc$	WEP Shared	
Security: WPA3-P Roams: 0					A M	$\bigcirc$	WEP Auto	
AP: <u>James_Asus6E</u> BSSID: <u>ASUSTek:0442</u>	21a-73e4	18			E	0	WPA Personal	
Channel: 37E Roam Scans: 0						0	WPA2 Personal	
Results					**	0	WPA Enterprise	
Signal (dBm) -20 -40 -60	$\sim$	n	~~~	23	A	0	WPA2 Enterprise	>
-80 -100 4:48:09 PM			4:4	19:36 PM	b	۲	WPA3 Personal	-
~	Cur	Min	Max	Avg		0	WPA3 Enterprise	
Signal (dBm)	-57	-75	-30	-45				_
Noise (dBm)	-90	-90	-90	-90			CANCEL C	ок
SNR (dB)	33			45				
$\bigtriangledown$	0							

#### **Wi-Fi Monitoring Enhancements**

The Wi-Fi app has been updated as follows:

To make it easier to differentiate between the 5 GHz and 6 GHz band • channels, all channel designations use an 'E' suffix for the 6 GHz band channels.



- The Channel Map on the Wi-Fi app now provides visibility into the 6 GHz band in the MAP 6E tab. Including:
  - 802.11 utilization 0
  - Non-802.11 utilization Ο
  - **Retry Percentage** Ο
  - Number of Access Points 0
  - Number of Clients Ο
- The Overlap screen on the Wi-Fi app now provides visibility into the 6 GHz band. It will also allow you quickly change between UNII bands by using the options provided at the bottom of the screen.





• BSSIDs details now indicate if they are carrying a Reduced Neighbor Report (RNR) or Multi-BSSID element.



**Note**: Reduced Neighbor Reports or Multi-BSSID may not be supported by all Access Point vendors.

Additionally, Wi-Fi BSSID lists now allow you to sort BSSIDs by:

- o QBSS Station Count
- QBSS Channel Utilization
- o Channel Width

### AirMapper – Wi-Fi 6/6E Site Surveys

You can now easily map and visualize Wi-Fi 6/6E network coverage and performance with the AirMapper Site Survey app on the EXG-300 model of the EtherScope nXG. This release introduces the ability to perform:

- Native Wi-Fi 6 active surveys.
- Native Wi-Fi 6 passive surveys.
- Active or passive surveys on the 6 GHz band.



### Spectrum Analysis App (new in 2.0)

Troubleshooting non-802.11 interference problems will now be easier than before! Using the new NXT-1000 Portable Spectrum Analyzer, both owners of the EXG-200 and EXG-300 models of the EtherScope nXG will gain access to a 2.4 GHz and 5 GHz spectrum analysis app.



The new spectrum analysis app will allow you to select between the 2.4 GHz and 5 GHz bands, plus it will provide access to the following graphs:

 Real-Time Spectrum – The graph displays in real time the value of RF power as a function of radio frequency. The X-axis shows the frequency range of each channel in the selected radio band; the Y-axis shows power readings in dBm. Double tap to zoom in.



• Frequency Spectrum - The graph shows the spectrum density of a particular frequency/power reading over time. The X-axis shows the frequency or channel for the selected 802.11 radio band; the Y-axis shows the minimum and maximum power readings in dBm.



 Spectrogram - The Waterfall graph (commonly called Spectrogram) allows you to visualize the changes in the spectrum over time and to easily identify any shift in frequency use and the duration of such shifts. The X-axis shows the frequency range covered by the selected radio band. The Y-axis shows the time on which the measurement was performed.



**Note**: If after upgrading to the v2.0 software the Spectrum app does not show up on your home screen, go to the apps screen and move it to the home screen.

### **Performance Test Improvements**

When configuring a Performance Test stream, you can now override the UDP port on a per stream basis. This allows a separation of the port used for management communication from the port used for the UDP payload.



## **Upgrading to Version 2.0**

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. Touch **Download + Install** to update the System.
- 5. When finished, the unit will restart.