



Reconfiguring Ground Station Wi-Fi (Bullet M5)

Technical Bulletin

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Introduction

The purpose of this document is to demonstrate how to reconfigure the settings on a Wi-Fi Bullet Long Range Module for use with a ground station computer from Phoenix LiDAR Systems. This reconfiguration is required if you need the module to connect to a different WiFi network, e.g. when you switch between multiple rover systems.

During this procedure, the Wi-Fi bullet module and antenna must be powered and connected locally to the laptop used for acquisition via an ethernet cable. Ensure the navigation box is powered on (CPU light is on) and the 5.8 GHz Wi-Fi antenna is connected to the navigation box. Provide power to the rover with the included AC adapter.

Pre-Procedure

After connecting the WiFi module to the notebook, ensure the notebook's ethernet adapter shows an IP address of 192.168.200.X and a DHCP server of 192.168.200.1. If that's not the case, please configure your ethernet settings as shown in the section titled Wired Ethernet Network Card Setup in the Phoenix LiDAR Systems User Manual.

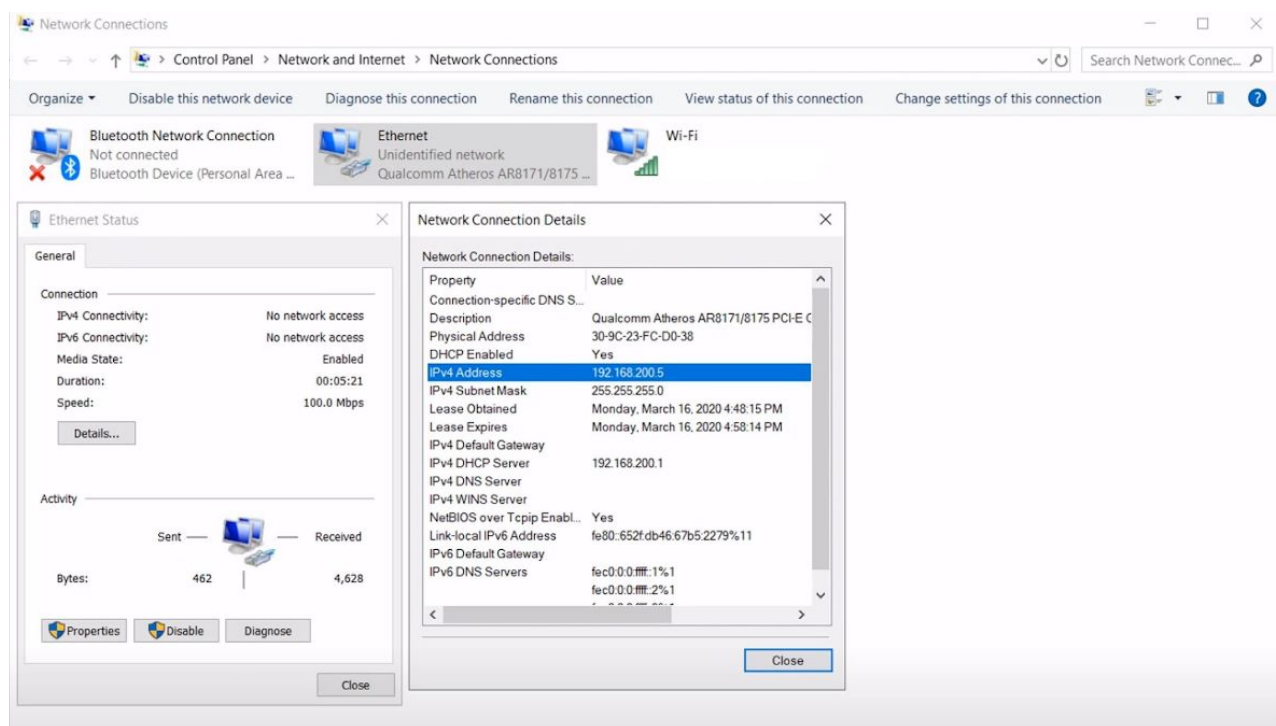


Figure 1: Verify Network settings

Procedure

1. Launch a web browser from the computer connected to the Wi-Fi Bullet. To access the Bullet Web UI, enter the address: **192.168.200.1**. If a privacy error warning appears, select the option to proceed to the address.

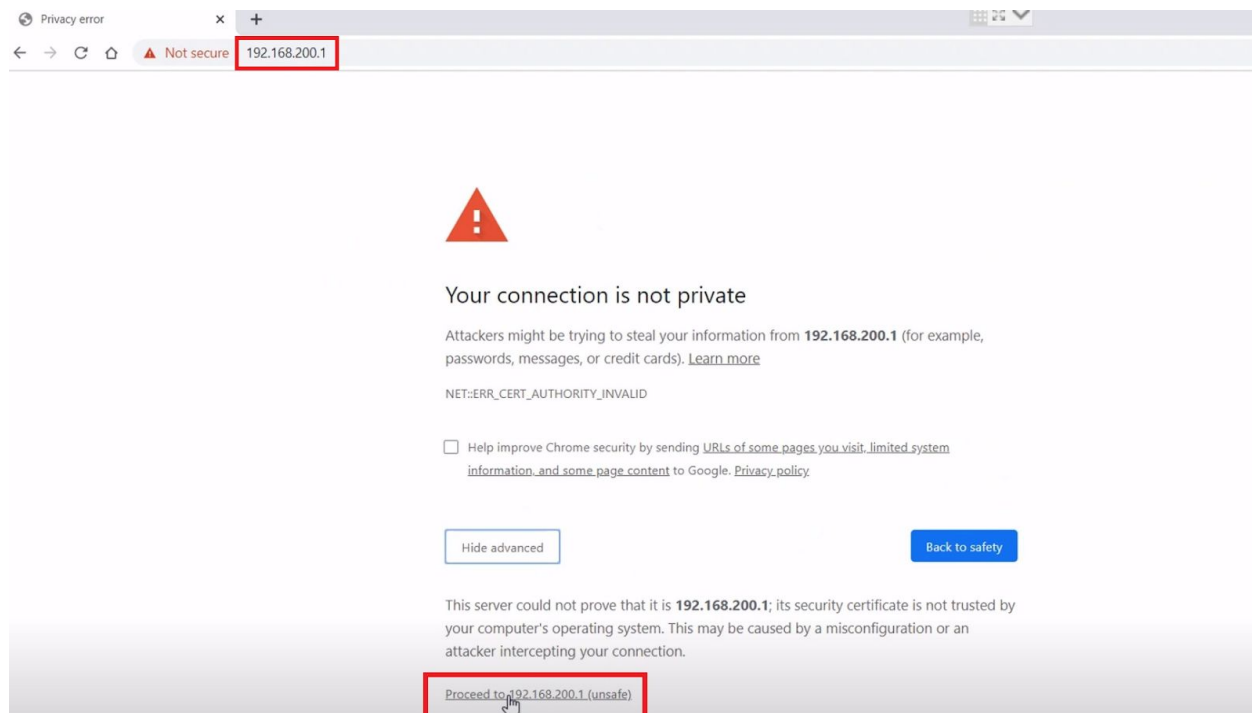


Figure 2: Enter address into browser

2. Login with **username:** phoenix and **password:** aeriallidar

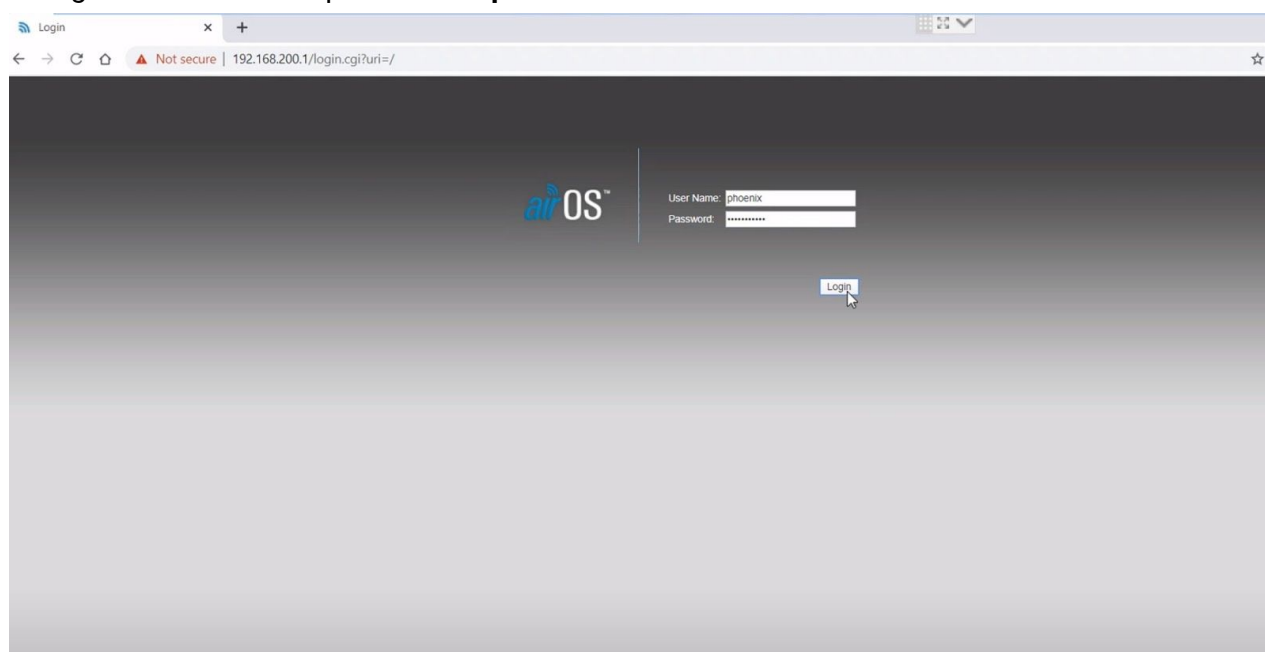


Figure 3: Login to the Bullet Web UI

3. In the **Wireless** tab of the web interface, choose the SSID by clicking the "Select" radio button and selecting the option titled **phoenix** ending in the 3 last digits of your system's serial number.

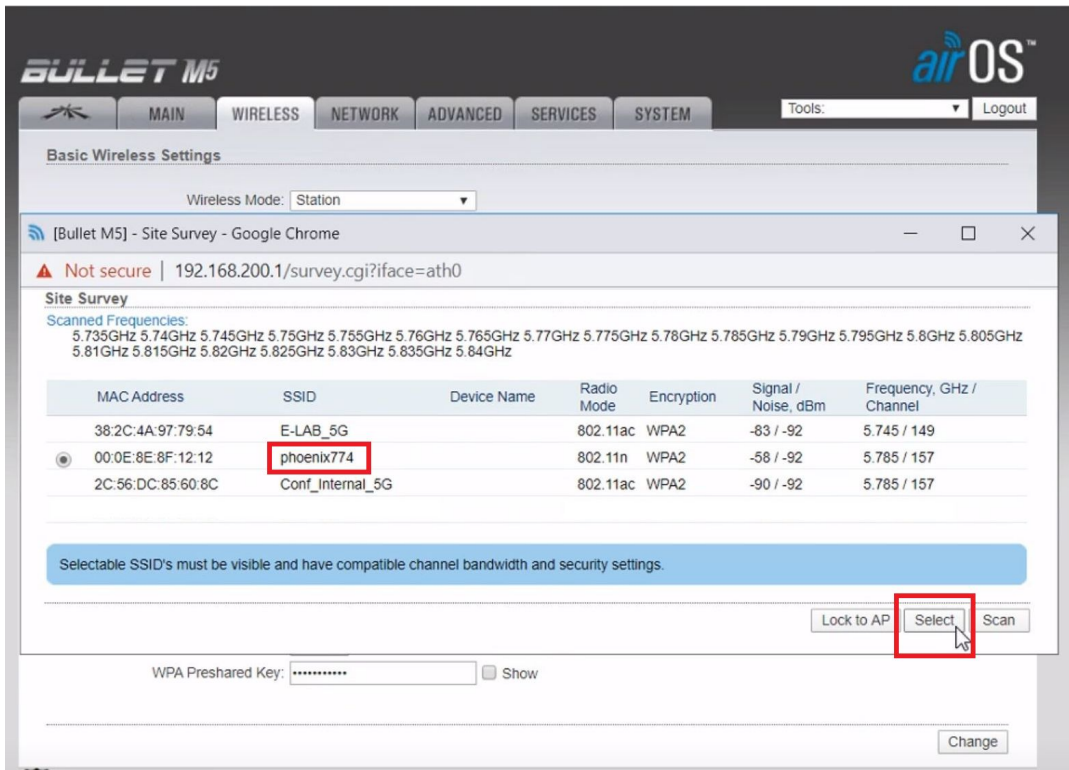
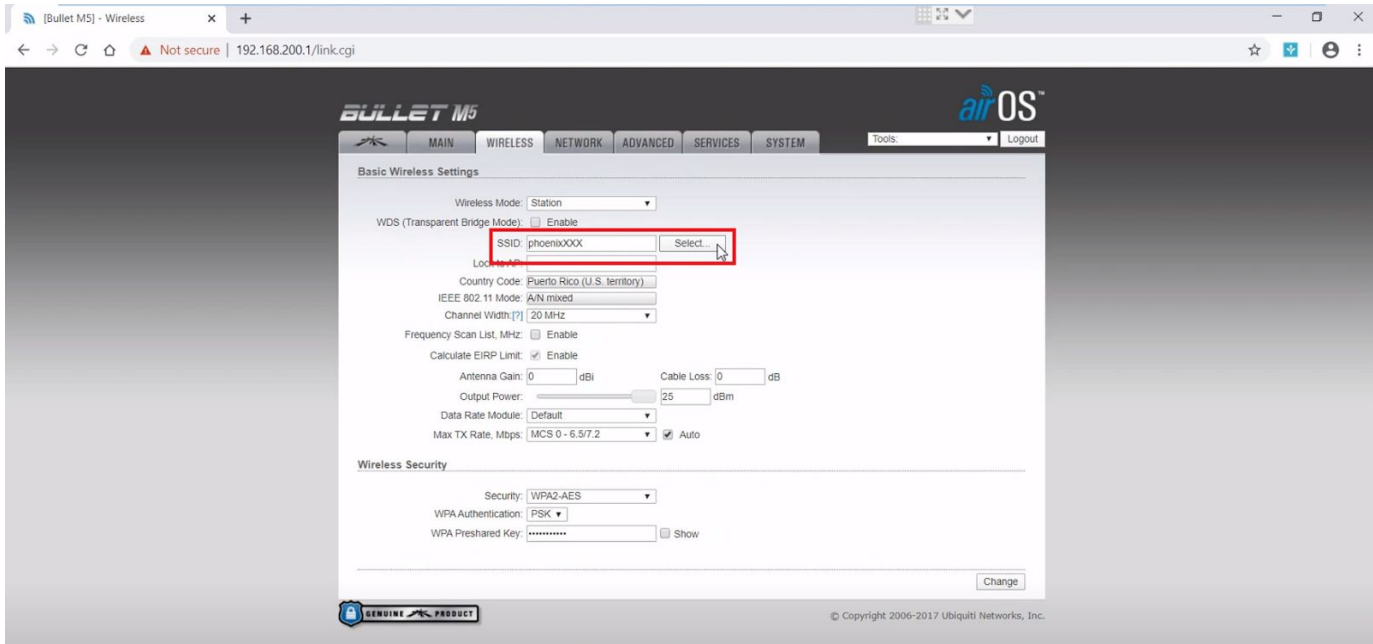


Figure 4: Select the new SSID

4. Select **Change** and then select **Apply** these changes when prompted.

The screenshot shows the 'airOS' interface for a 'BULLET M5' device. The 'WIRELESS' tab is selected. The 'Basic Wireless Settings' section includes fields for Wireless Mode (Station), WDS (Transparent Bridge Mode) (disabled), SSID (phoenix774), Lock to AP, Country Code (Puerto Rico (U.S. territory)), IEEE 802.11 Mode (A/N mixed), Channel Width (20 MHz), Frequency Scan List (disabled), Calculate EIRP Limit (enabled), Antenna Gain (0 dBi), Cable Loss (0 dB), Output Power (25 dBm), Data Rate Module (Default), and Max TX Rate (MCS 0 - 6.5/7.2, Auto). The 'Wireless Security' section shows Security (WPA2-AES), WPA Authentication (PSK), and WPA Preshared Key (masked). A 'Change' button is highlighted with a red box in the bottom right corner.

The screenshot shows the same 'airOS' interface, but a confirmation dialog is displayed at the top: 'Configuration contains changes. Apply these changes?'. The dialog has three buttons: 'Test', 'Apply', and 'Discard'. The 'Apply' button is highlighted with a red box. Below the dialog, the 'Basic Wireless Settings' and 'Wireless Security' sections are visible, with the 'Change' button at the bottom right.

Figure 5: Select Change and then Apply

- To verify setup, a SpatialExplorer connection to the nav box with the IP address **192.168.20.10** or the hostname **rover-wifi** can be used to test the Bullet. A successful connection to the rover via Wi-Fi connection concludes the test and reconfiguration.

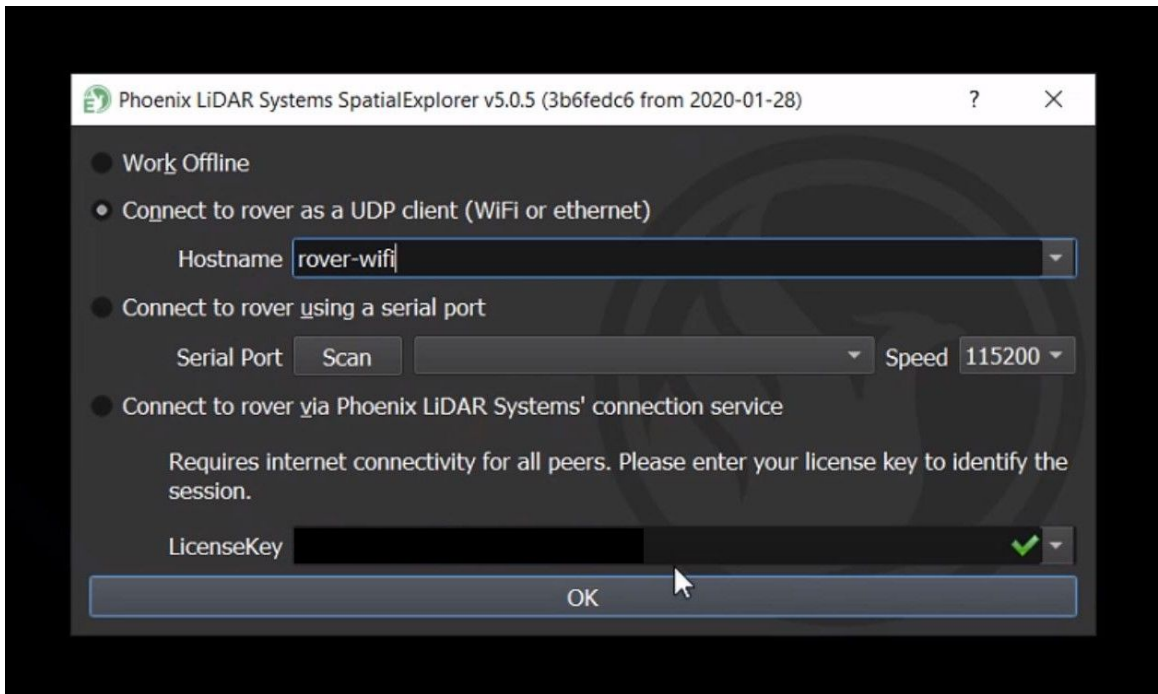


Figure 6: Connect to rover via wifi to test

This content is subject to change.

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