BEACON PC Connection using RNDIS - Quick Start Guide

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Purpose

This quick start guide will walk you through the steps to set up the RNDIS driver on a Windows 10 PC. The RNDIS driver will allow you to communicate between the PC and Beacon using TCP/IP over a USB connection.

RNDIS Driver

Remote Network Driver Interface Specification (RNDIS) is a Microsoft proprietary protocol used mostly on top of USB. It provides a virtual Ethernet link to most versions of the Windows.

Unfortunately, Windows 10 or Windows 11 will not automatically install the RNDIS driver. You must do the installation manually. Please follow the simple instructions at the end of this application note.

RNDIS Static IP address

Every Beacon has a unique, static IP address based on an internal serial number, which is used with the RNDIS connection. This unique IP address is printed on the serial number label on the bottom of the Beacon package. In addition, you can see it listed on the opening page of the internal Beacon web page. It is a fixed address and cannot be changed.

The Beacon will act as a DHCP server for the RNDIS connection. Your PC will have an IP address automatically assigned to it.

Connecting via USB

First, connect a USB cable from the USB type B jack on the Beacon to any of the USB type A jacks on your PC. If the PC is on, the Beacon will now boot up. This process takes approximately 40 seconds. You can communicate to the Beacon and drag and drop files to it, however, the Vehicle Protocol connections will not function while it is powered only from the USB connection.

To utilize the Vehicle Protocol connections, disconnect the USB cable from the Beacon to remove power. Now, plug in the supplied wall mount power supply and connect it to the DC input jack of the Beacon. The USB cable may now be connected. Note that the Beacon can also be powered via the vehicle network cable. You can find more about this in the Beacon User Manual.

You will be prompted to input a username and password.

> The default Username is sysadmin
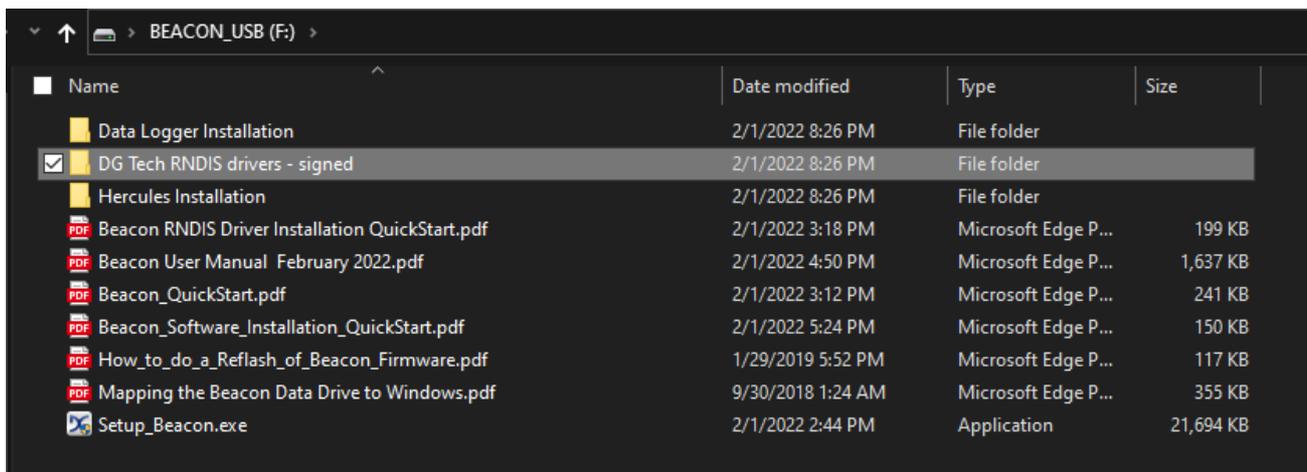> The default Password is dgbeacon

More information about the Beacon and the various onboard utilities can be found in the Beacon User's Manual, in the files delivered with the Beacon, or online at WWW.DGTECH.COM
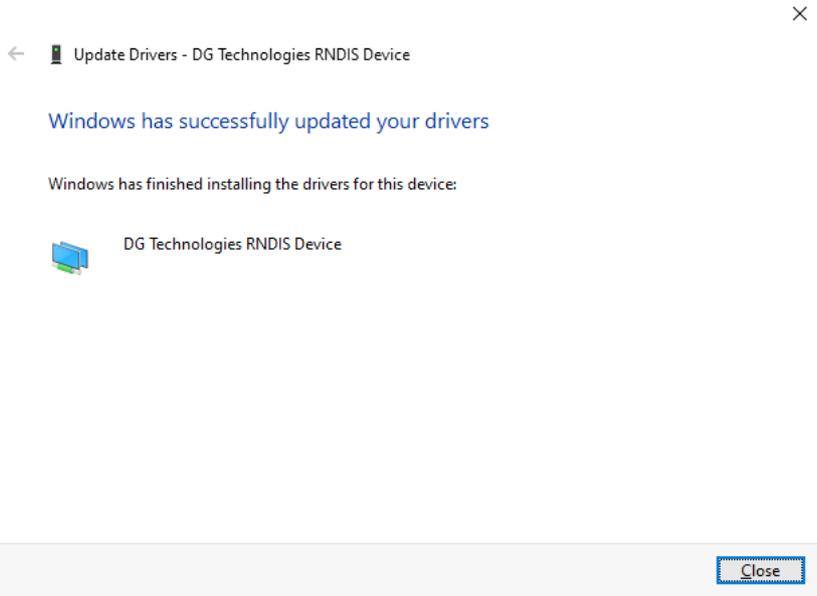
Installing the RNDIS driver on Windows 10 PC

On a PC running Windows 10 or Windows 11, after plugging in a Beacon, navigate to the Windows Device Manager.

You will see an 'RNDIS' device under 'Other Devices'.

   - Right-click this RNDIS device and select 'Update Driver'.

   - Select 'Browse my computer for a drivers'

   - Navigate to the Beacon USB drive and the DG Tech RNDIS folder

Name	Date modified	Type	Size
Data Logger Installation	2/1/2022 8:26 PM	File folder	
DG Tech RNDIS drivers - signed	2/1/2022 8:26 PM	File folder	
Hercules Installation	2/1/2022 8:26 PM	File folder	
Beacon RNDIS Driver Installation QuickStart.pdf	2/1/2022 3:18 PM	Microsoft Edge P...	199 KB
Beacon User Manual February 2022.pdf	2/1/2022 4:50 PM	Microsoft Edge P...	1,637 KB
Beacon_QuickStart.pdf	2/1/2022 3:12 PM	Microsoft Edge P...	241 KB
Beacon_Software_Installation_QuickStart.pdf	2/1/2022 5:24 PM	Microsoft Edge P...	150 KB
How_to_do_a_Reflash_of_Beacon_Firmware.pdf	1/29/2019 5:52 PM	Microsoft Edge P...	117 KB
Mapping the Beacon Data Drive to Windows.pdf	9/30/2018 1:24 AM	Microsoft Edge P...	355 KB
Setup_Beacon.exe	2/1/2022 2:44 PM	Application	21,694 KB

Click on OK and the new drivers will be installed.

Device Manager will now show the new network connection.

The driver installation process is complete.