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Using the Digi One SP to Network Doppler Systems DDF6001s using an Ethernet

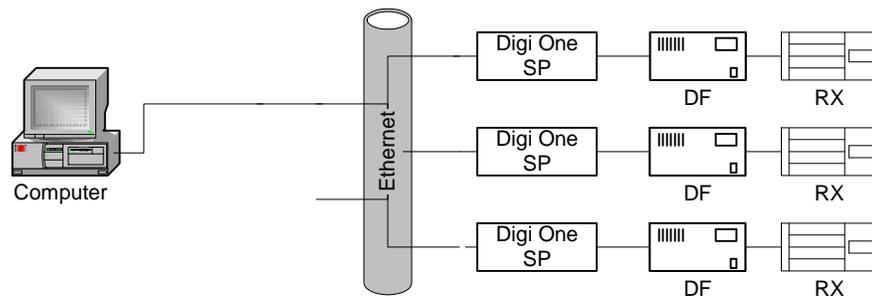
A Technical Application Note from Doppler Systems Inc.

Introduction

The [Digi](#) One SP allows a device with a serial port to be connected to an Ethernet. This application note describes the connections and setup required to use the Digi One SP with the Doppler DDF6001 direction finders. (Note that this application note also applies to older DDF6001 direction finders).

Network Configuration

The figure below shows the configuration of the network when using the Digi One SP. Each Digi One device is a terminal server that allows one connection. Therefore, only one computer connected to the network can control and monitor the direction finder sites. If it necessary to have multiple computers monitor the DF network, then BearingTrack Server (see BearingTrack manual) must be used instead of the Digi One SP.



Programming the Digi One SP

The Digi One SP comes with a CD that contains the software necessary to set it up. First connect the Digi One SP to its power supply and then connect it to the network using a standard category 5 networking cable. Insert the CD and wait for the set up program to launch. The Digi Device Setup wizard should also automatically start. Press Next on the first page of the wizard. The wizard will locate the Digi One device. Select the device and press Next. Set the IP address and subnet mask of the device consistent with your network. Each Digi One SP device must have a unique IP address in order to work with the BearingTrack software. Set the IP address and make a note of the address you set. Press the next button and select **Incoming Connection**. Press the Next button and select

Incoming Network Connection. Press Next and select **TCP Sockets**. Press Next and set the serial port parameters to Baud Rate 2400, Data bits 8, Parity None, Stop Bits 1, and Flow Control None. Press Next and verify the settings you've entered and then press Next again and wait for the Digi One SP to reboot (takes about 1 minute).

If you want to modify any of the settings, the Digi One comes with a built in web server so you can use a web browser (e.g. Internet Explorer) to modify the settings. Refer to the Digi One SP manual for instructions on how to use a web browser to modify its settings.

Configuring the DDF6001

During the normal setup of the DDF6001 WinRDFCommand is used to set the CIV address of the DF and to change other settings if needed. To use WinRDF Command first connect J1 on the DDF6001 to the computer using a serial RS232 cable. Launch the WinRDFCommand program. Set up the DDF6001 as you desire and then press the Auto Output On radio button to switch the DF into the automatic output mode. Automatic output must be enabled to use the DF6001 with the Digi One SP.

Configuring Bearing Track

When setting up the sites in Bearing Track (see manual or help file) select the **Enable Internet Connection** checkbox for each site and enter the IP address of the Digi One SP device at that site location. Enter 2101 for the port number.

Installing the Digi One SP

Connect the serial connector on the Digi One SP to J1 of the DF600. Connect a category 5 cable from the Digi One SP to your network connection. Connect the power supply included with the Digi One SP to the unit.

Operation

Use BearingTrack as described in the BearingTrack manual or help files.