

# Scale Interface Connection Options

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There are many advantages to connecting a Scale Interface system directly to live Agvance data. Some companies run Agvance via Remote Desktop and send scale information to the server using Terminal Server's COM Port mapping feature. However, this is an inefficient method and can impact performance for all users on the Terminal Server. Because of these issues, some companies choose to run the Scale Interface disconnected from live Agvance data.

Recently SSI staff became aware of a method to overcome potential performance issues when connecting to live Agvance data. By implementing a Serial-over-IP device, the scale indicators are connected directly to the server. This allows Agvance to run connected to live data from the scale house via a Remote Desktop connection and provides users real-time weight information in the Agvance Scale Interface.

**The root of the problem:** The RS-232 protocol that is used by COM Ports was first developed in 1962 and is designed to send a single character (aka one byte) at a time. The TCP protocol that is the backbone of today's internet uses packets carrying an average of 576 bytes at a time. When serial data is sent to the server using Terminal Server's COM Port mapping feature, each packet carries a single byte instead of the 576 bytes it could be carrying. This means several hundred packets are used to carry what could be carried in a single packet.

**An excellent solution:** When using a Serial-over-IP device, the scale indicator is plugged into the device which is plugged into the network. The device packages the Com Port data into more efficient IP Packets and sends the data to the Terminal Server over the network using very little bandwidth. A "virtual Com Port listener" is installed on the Terminal Server that collects the data from the Serial-over-IP device, converts it back into RS-232 serial data and sends it to the "virtual" Com Port that is specified. The Scale Interface is configured in Agvance to use this virtual Com Port and supports COM1 through COM256.

Although there are several Serial-over-IP devices made by a variety of companies, we have tested and recommend using devices from Antaira. They have models ranging from 1 port to 16 ports. If you would like more information about using a Serial-over-IP device with your Scale Interface, please call SSI.