

## Case Study

# Veeder-Root TLS-350 to EcoStruxure Integration

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## Overview

Schneider Electric was attempting to integrate a Veeder-Root TLS-350 into its EcoStruxure BMS using Modbus RTU, but the project had stalled. A third-party gateway failed to communicate with the TLS-350, and a follow-up attempt to configure a FieldServer QuickServer FS-QS-2020-0499 without Chipkin support also failed to produce reliable serial communication.

With the project entering a penalty window, Schneider Electric engaged Chipkin for urgent assistance. Using the FS-8790-33 configuration service, Chipkin developed a working FieldServer configuration and commissioned the integration within 24 hours—resolving multiple technical issues, restoring dependable TLS-350 data flow into EcoStruxure, and preventing further delays for the client.

The combination of a proven FieldServer gateway and Chipkin's configuration expertise allowed the client to recover a stalled integration and deliver accurate TLS-350 data to EcoStruxure in a very compressed timeframe.

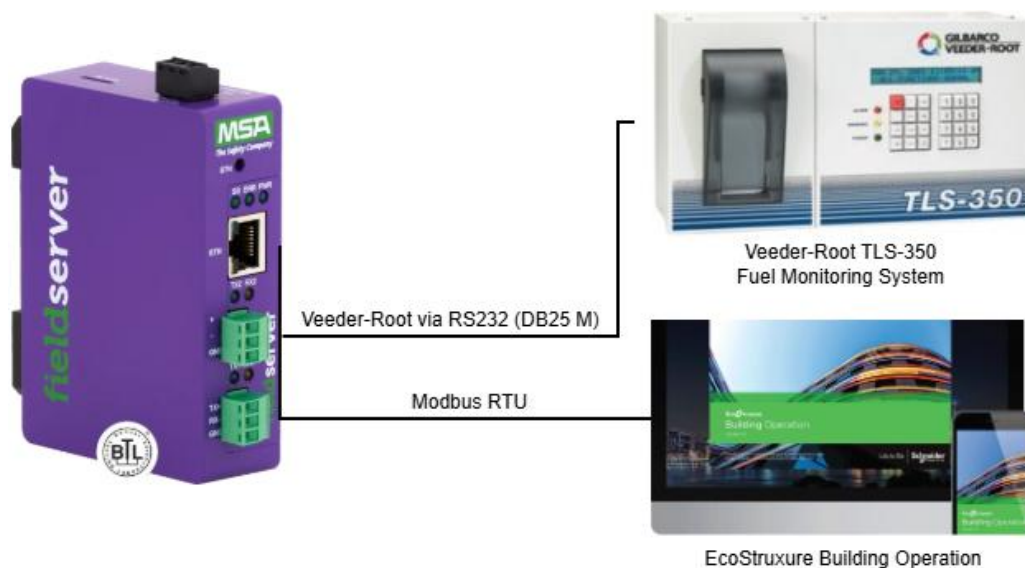


## Challenge & Chipkin's Solution

When Chipkin became involved, the system suffered from incorrect wiring, improper serial settings, and a non-functional configuration file. The TLS-350 uses RS-232 via a DB25-M connector, but the onsite wiring did not follow the required Veeder-Root pinout, preventing communication altogether.

Chipkin reviewed the wiring and confirmed the correct RS-232 assignments (TX → pin 2, RX → pin 3, Ground → pin 7). After guiding the customer through correcting the wiring and enabling RS-232 mode on the FieldServer, Chipkin developed a custom configuration file in under one day. This file correctly mapped TLS-350 tank inventory, temperatures, water levels, alarms, and relays into Modbus registers starting at 30001.

Chipkin also resolved an issue where FLOAT values were being interpreted incorrectly, implementing the proper FLOAT-to-INT16 format and clarifying how the Modbus master should handle paired registers. A network diagram of the integration is shown below.



The following day, Chipkin joined the customer onsite via remote session, uploaded the new configuration, validated communication, and confirmed that the EcoStruxure BMS was reading accurate and stable data from the TLS-350.

## Outcome & Real-World Impact

Chipkin successfully recovered a project that had already failed twice and delivered a fully working solution within 48 hours. With Chipkin's support, Schneider Electric achieved reliable real-time communication with the TLS-350, accurate tank inventory and alarm data, correct Modbus formatting—including proper FLOAT handling—and a fully commissioned system under urgent conditions.

Because TLS-350 systems often support critical operations such as generator fuel supply and environmental monitoring, timely integration is essential. Chipkin's rapid response and protocol expertise prevented further delays and ensured the client could deliver a stable EcoStruxure integration to their customer.