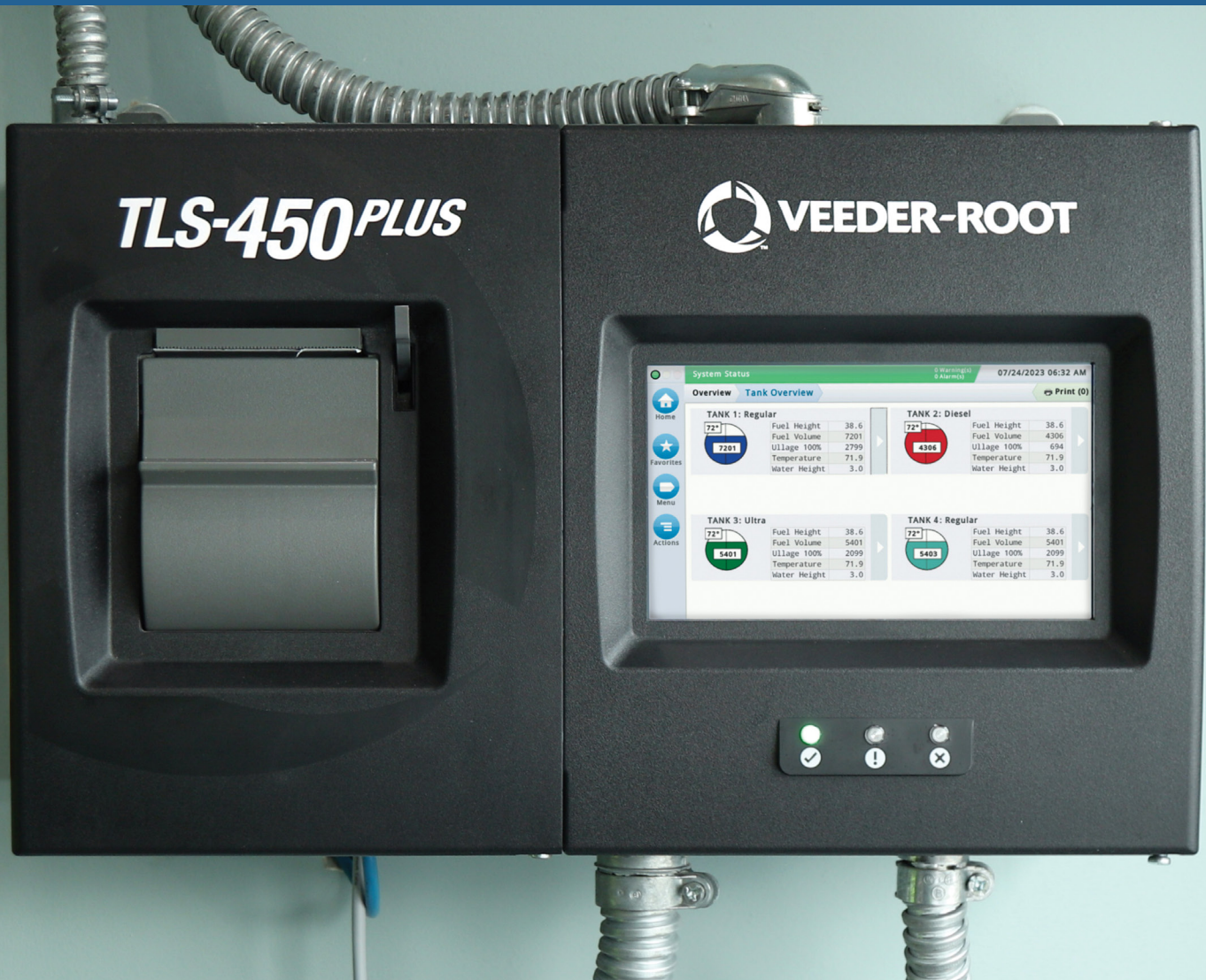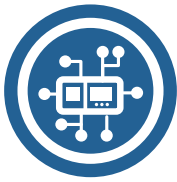# BENEFITS OF UPGRADING TO THE
TLS-450PLUS

ELEVATE YOUR FUEL MANAGEMENT SYSTEM

The TLS-350 Automatic Tank Gauge (ATG) has long set the standard for exceptional quality in fuel management systems.

Today, the TLS-450PLUS ATG builds on that solid legacy to set a new bar for reliability and convenience.

CONNECTIVITY
EASILY ACCESS & MANAGE CRITICAL DATA

The TLS-450PLUS provides a wide range of connectivity options, ensuring you always know what is going on with your fueling assets. Whether you need to remotely access or configure your Automatic Tank Gauge (ATG) from a computer, or you want to check fuel inventories, alarms or more from your cell phone or tablet, the connectivity features needed to get the job done come standard, exclusively on the TLS-450PLUS and TLS4 Series ATGs.
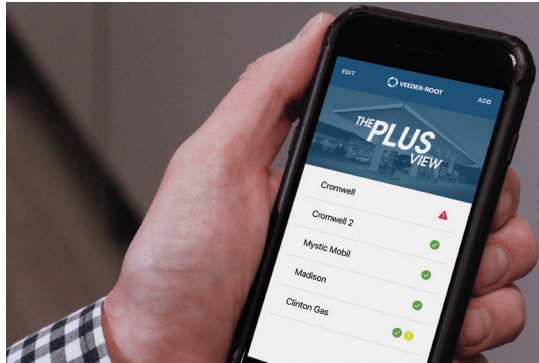
THE PLUS VIEW app provides periodic status updates from off-site, and includes:

• Station overview for an immediate status check on tank inventory

• Reports tab for quick access to Inventory and Last Delivery Reports

• Alarms tab for one-touch access to alarm information

Centralized Device Management (CDM):

CDM is a server-based software package providing remote access and control of ATGs within your entire network of sites. You can update the console's software, backup the site's console data, and see what changes were made to the console's configuration, all remotely.
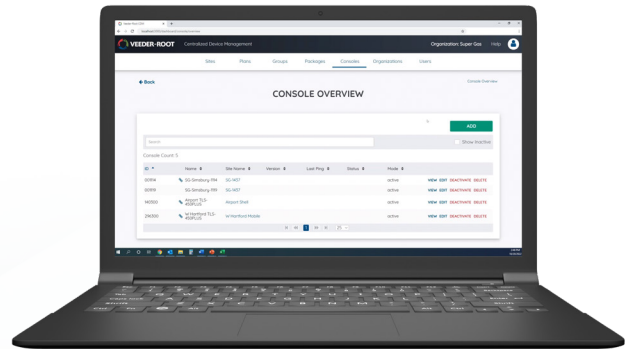
| APP FEATURES	THE PLUS VIEW
Station Overview: Immediate status check on tank inventory	✅
Reports Tab: Easy access to Inventory and Last Delivery Reports	✅
Alarms Tab: One-touch access to alarm information	✅
Real-Time Updates: Continuous connectivity and updates	✅
Notifications: Real-time audible / visual alarms	✅
Disconnect: Audible / Visual notification for lost connectivity	✅
In-Store Format: For optimal experience for site personnel	✅

Download on the App Store

GET IT ON Google Play
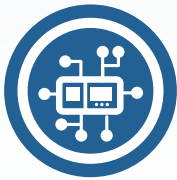
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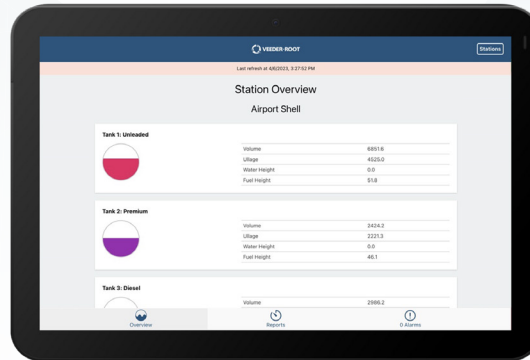
WEB-ENABLED INTERFACE

Modify configuration & programming, including:

- Print wet stock management and compliance reports
- Set up email notifications for alarms and reports
- Establish automatic events scheduled to your business needs

MANAGED SERVICES

Cloud based fuel management:

Insite360 provides total control of your network with a team of analysts protecting your most valuable assets. Maximize your business with cutting-edge features including detecting dispenser flow reduction and meter drift by nozzle.

ENHANCED SECURITY
GREATER CONNECTIVITY NEEDS GREATER PROTECTION

The TLS-450PLUS provides the security needed for today's connected world. Whether a security breach comes from inside or outside an organization, older technology lacks modern security features needed to combat cyber intruders, who can wreak havoc on your business. Rest assured with the comprehensive security features of the TLS-450PLUS.

Features such as strong encryption, configurable user access, and segmented network ports help ensure your network is safe at every level. No matter your network's size, security comes standard with the TLS-450PLUS.

ENHANCED SECURITY
GREATER CONNECTIVITY NEEDS GREATER PROTECTION

THE TLS-450PLUS SUPPORTS THESE ENHANCED SECURITY FEATURES:	TLS-350	TLS-450PLUS
1. Isolated Networks: The TLS-450PLUS provides three Ethernet connectors: • ETH1 provides a direct connection into the gauge and will typically be used for connecting internal corporate data (POS, management, and DIM data). • ETH2 and ETH3 are connected to an internal switch and can be used to isolate external connectivity (on-site maintenance, Wireless connections with The PLUS VIEW, etc.).	—	✅
2. Encrypted Web Access: The TLS-450PLUS only uses the secure HTTPS interface. Access to the gauge requires a username and password.	—	✅
3. Encrypted Serial Access: Previous consoles provided a Raw / Telnet interface for the serial commands. This is still available on the TLS-450PLUS but can be disabled. A very secure SSL/SSH based serial command interface is available using private and public key pairs.	—	✅
4. Role-Based Access: The TLS-450PLUS provides standard roles as well as customizable roles for users connecting to the gauge. Each role controls the user's abilities on the console screens (no access, read-only, and full control).	—	✅
5. Front Panel Access: Access to the console screen can be set up to require the user to log in to the system before being able to use the gauge. Activating Front Panel Security will help prevent unwanted access inside the station. **Security breaches originate from both inside and outside companies.**	—	✅
6. Network Routing: The TLS-450PLUS supports advanced network routing tables to control the flow of data to gateways and networks. It can also be used to drop data coming from unwanted sources, make sure data is isolated to a certain network (e.g., ETH1), and prevent data from flowing through a default gateway.	—	✅

SSH Client   Private Key

Public Key   SSH Server

Hello   f7#E+r   Hello

Encrypt   Decrypt

Customer's PC

TLS-450PLUS

ENHANCED SECURITY
GREATER CONNECTIVITY NEEDS GREATER PROTECTION

▶ WHAT CAN HAPPEN IF YOU DO NOT TAKE OWNERSHIP OF YOUR NETWORK?

1. **Rename Tank Information:** On consoles using Telnet, hackers find the MAC address, determine whether it is a TLS-350 or TLS-450PLUS, and simply change the tank names to something inappropriate.

2. **Resize Tanks (From 10K to 20K Gallons):** It is possible to change the tank size, so it appears the tank can hold more than it really can. The thresholds could also be changed so that overflow alarms appear at a higher level. The potential would be to overfill the tank causing an environmental leak.

3. **Shutdown Dispensing (DPLLD and Relay Settings):** The relays could be deprogrammed so that the pump wouldn't be activated on a hook signal. Additionally, DPLLD could be turned off so catastrophic leaks may not be detected.

4. **Capture Sensitive Corporate Data:** By monitoring unsecure Telnet connections, observers can gather operations data (delivery, inventory, alarms, etc.) for sale to third parties.

5. **Shutdown IP Cards / Networking Services:** After gaining access to a vulnerable corporate network, hackers could alter TLS-350 Ethernet cards lacking passwords; changing configurations and rendering management systems ineffective. Critical operations could be impacted (hospitals, emergency providers, cell service, power plants, etc.).

6. **Loss of Compliance Data:** Reprogramming the console could result in the loss of compliance data translating to potential regulatory fines.

NEW METHODS OF ATTACKING EQUIPMENT ARE DISCOVERED DAILY.

These are collected in a national database (Common Vulnerabilities and Exposures (CVE)) and made available to the public to address the issues. Software suppliers, including Veeder-Root, use this information to create fixes. As fixes are made available, equipment should be upgraded to protect it from potential security vulnerabilities.

Veeder-Root uses two platforms daily to discover any new vulnerabilities in our TLS-450PLUS software.

LOWER COST OF OWNERSHIP
PROTECT YOUR INVESTMENT & EXTEND YOUR WARRANTY

Upgrading to a TLS-450PLUS console provides an expanded, advanced feature set over the TLS-350 console and extends the warranty on most connected devices.

Significant labor savings can be gained with the TLS-450PLUS in comparison with the TLS-350, from the use of features like remote configuration, remote connectivity, automatic event notifications, and more. The TLS-450PLUS helps reduce downtime by ensuring you have real-time access to everything you need to keep your station in top condition.

LOWER COST OF OWNERSHIP
PROTECT YOUR INVESTMENT & EXTEND YOUR WARRANTY

COST SAVINGS CATEGORY	SAVINGS LEVEL
Equipment cost savings	$
Remote troubleshooting and configuration	$
Warranty extension	$$
Remote software download	$$
Free monthly software upgrades	$$$
Reduced downtime due to real time access to data	$$$$

EXPANDED CAPABILITIES
YOUR PLATFORM FOR THE FUTURE

▶ FEATURES IMPROVED OR NEW ON THE TLS-450PLUS ATG INCLUDE:

Digital Pressurized Line Leak Detection (DPLLD)

The line volume expansion of DPLLD for the TLS-450PLUS provides advanced line leak detection to meet the capacity of growing fuel sites, certified up to 1,178 gallons (4,459 liters) of capacity. The DPLLD equipment performs a 3.0 Gallons Per Hour (GPH)/11.4 Liters Per Hour (LPH) line leak test following each dispense. With the proper software enhancement feature installed, the DPLLD equipment will also perform 0.1 GPH/0.38 LPH and 0.2 GPH/0.76 LPH line tests to meet your regulatory needs, eliminating the need for separate annual line leak testing.

In-Tank Calibration with AccuChart™

Our third generation AccuChart utilizes enhanced geometric tank chart modeling for the TLS-450PLUS with optional restricted tank ranges to perform calibration. Chart volumes are calculated using adjustable geometry parameters: diameter, capacity, end shape, tilt, and probe offset. Completed charts are established more quickly and with higher accuracy from a limited amount of data.

Intelligent Pump Control (IPC)

TLS-450PLUS software feature that enables communication between the ATG and Red Jacket® Submersible Turbine Pumps (STPs) through the IQ Smart Control Box for advanced pump control, as well as through FE Petro® controllers. With IPC, you are able to benefit from flow optimization, operational redundancy, proper equipment loading and protection and more with pump staging, advanced pump dispense modes, line and pump priority, and other advanced pump control features.

Centralized Device Management (CDM)

CDM is a server-based software package to manage your entire network of sites.

• Ensure your ATG consoles are always up to date with the latest features and security updates.

• Perform software upgrades and backups across your console network on your schedule.

• Back up console data and settings, ensuring you never lose important records.

Business Inventory Reconciliation (BIR)

BIR on the TLS-450PLUS has been enhanced for your custom reconciliation needs and meets federal, state, or local requirements.

It includes automated reporting on:
• Throughput thresholds
• Delivery thresholds
• Capacity thresholds
• Custom thresholds

Data Logging

Our data logging system has the ability to record inventory history, sensor history, and other reports at predetermined intervals. This feature is important as it can be used to reconcile business data and support audit integrity.

FE Petro® is a registered trademark of Franklin Electric Company, Inc.

ADDITIONAL FEATURES INCLUDE:

DEF Recirculation | In-Station Diagnostics (ISD) | Free Software Upgrades | Email Notifications
Custom Alarms | Historical Inventory | Sensor Data | Enhanced Encryption Methods

UPGRADE
TODAY!

Contact your distributor or Veeder-Root sales representative today to learn more about the TLS-450PLUS.

Existing TLS-350 customers can take advantage of upgrade package savings for a limited time.

▶ To learn more about upgrading, visit us at **veeder.com/upgrade**

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