TANKCLARITY TRANSFORMS HOME HEATING WITH THE INTERNET OF THINGS

TANKCLARITY TRANSFORMS HOME HEATING

Particle
Welcome to real IoT.

TankClarity is making home heating affordable and safe with the Internet of Things. With Particle's hardware and software platform, TankClarity has developed a smart sensor that automatically notifies homeowners and distributors when home heating oils (HHO) need refilling.

7
Months
Tankclarity shipped their IoT solution to market in just 7 months with Particle

2
Minute Installation
TankClarity improved their device installation time to 2 minutes with Particle.

700
Connected Units
TankClarity deployed 700 IoT devices and intends to deploy more with Particle.

"By working with Particle, we receive both immediate value, and insurance against future obsolescence. Particle's engineers never stop working to optimize their existing platform. At the same time, they're also investing in entirely new, cutting-edge technologies. Because of this, we have the confidence a business needs to scale freely on a single platform."

Greg Hovagim
Chief Technology Officer & Co-Founder of TankClarity

TankClarity transforms the way we fuel our life

Six million homeowners currently use home heating oil to heat their homes and water. However, home heating oil is not a one-time purchase, so customers constantly need to monitor their oil levels so they know when to order a refill from oil distributors. This process of monitoring, order, and refilling is not only inefficient but cumbersome.

Home heating oil is typically stored in large tanks underneath a house or nearby outdoor area. This makes checking the level of oil difficult. Fortunately, with Particle, TankClarity has developed a smart solution that automatically notifies homeowners and fuel delivery companies via smartphone when home fuel levels are low, which saves both parties time and money.

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> "No other platform on the market even comes close to how seamlessly you can launch an enterprise-ready IoT product than Particle. The Device Cloud is intuitive, security is baked in, and over-the-air firmware updates are simply part of the product."

Louis Trebaol

Chief Executive Officer and Co-Founder of TankClarity

Particle jumpstarts the path to production

At first, the TankClarity team developed prototypes using Arduinos and Raspberry Pis. However, after some tinkering, they concluded that these developer boards wouldn't work at a commercial level.

After much research, the TankClarity team decided to use Particle's platform. With Particle, it took TankClarity a mere 7 months to turn their prototype sensors into a fully-fledged commercial product. TankClarity initially used Particle's Electron to connect their devices to the Internet over cellular networks. This gave them the flexibility to install their devices anywhere and remain confident that they wouldn't lose connection.

They are currently updating their new devices with Particle's E Series because it is designed to scale and can withstand intense environmental conditions. Switching from the Electron to the E Series was seamless because they both run the same code and have the same hardware peripherals, so transitioning to scale is as simple as replacing the Electron with an E Series. TankClarity now has 700 devices deployed across several states that are delivering real value to nearly 1,000 customers.

> "That kind of comprehensiveness and ease of implementation is invaluable when trying to get a new, compelling idea to market."

Louis Trebaol

Chief Executive Officer and Co-Founder of TankClarity

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IoT data makes inventory decision-making easy

For years, TankClarity's oil distributors have been looking for ways to gain better insights into consumer's oil fuel levels. With Particle's Device Cloud, TankClarity can provide this data to oil distributors, which has become a primary revenue driver for them. With this kind of data and analytics, home heating oil distributors can learn more about oil consumption, which helps them improve their financial forecasting and supply-chain management. With IoT technology, TankClarity is improving their relationship with oil distributors and creating an ecosystem that is valuable to customers and suppliers.

TankClarity improves the customer experience with 2-minute installation times

One of TankClarity's goal was to make the smart sensors and consumer application easy to use. With the Particle's platform ease of accessibility, they have been able to establish an overall average installation time of just 2 minutes per device. As a result, technicians have found themselves spending more time getting to know their customers – they can listen to customer feedback and answer questions for them, which has improved customer relations tremendously.

"With the extreme ease and accessibility of the Particle platform, we've been able to establish an overall average installation time of just 2 minutes per device."

Greg Hovagim

Chief Technology Officer & Co-Founder of TankClarity

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Particle + TankClarity = Success

For Particle and TankClarity, this IoT project proved to be immensely successful. With over 700 units deployed, and adoption growing rapidly, TankClarity is set up for success and plans to connect more of their operations in the future.

"Particle's engineers never stop working to optimize their existing platform. At the same time, they're also investing in entirely new, cutting-edge technologies. Because of this, we have the confidence a business needs to scale freely on a single platform."

Greg Hovagim
Chief Technology Officer & Co-Founder of TankClarity

LOOKING FOR MORE INFORMATION?

Feel free to pick up a developer kit from our hardware store to get started, or visit particle.io/sales to learn more.