

TORNADO SMART WATER HEATERS

A complete IoT enabled solution
for on demand water heaters

CASE STUDY

CUSTOMER REQUIREMENTS

El Araby is the top-tier OEM of various types of electrical equipment and appliances. Their requirement was to transform their existing product of Tornado Water Heaters into Smart Water Heaters. Their demand was to make the water heaters smart and connected to provide on-demand water heating while conserving water and energy.

CHALLENGES FACED BY EL ARABY

Before IoT, contractors and business owners had to rely on programmable water heaters that required a user to be physically present to change settings on a touch screen. All the data was stored locally, and had very limited visibility about the device configuration. No realtime monitoring of the device was implemented hence, the users are unaware of the key parameters of the device such as water level, realtime energy consumption, water consumption and much more.

Furthermore, the lack of connectivity between the water heaters with other devices. Traditionally the water heaters are working in silos with no integration with other ERP systems and mobile applications. This creates an accessibility barrier for the users and limits the user to operate the appliance.

Existing gas or electric water heaters can become inefficient through the overheating of water and through parasitic heat loss. These inefficiencies can be solved by automated monitoring when a water heater uses hot water.

HYPERNET: A COMPLETE CONNECTED SOLUTION

Owing to the specified requirements, HyperNym developed purpose-built web and mobile applications for the control and monitoring of Tornado Smart Water Heaters. The web and mobile applications have extensive features of user and device management. Appliance users can register and log in and manage all aspects of Tornado Smart Water Heaters.

HyperNym's advanced IoT solutions are trusted to automate, monitor, schedule, and save time for optimum user experience. With continuous innovation in advanced measurement and monitoring technologies, HyperNet Smart water heater solution enables you to measure pressure, temperature, water level, water flow, energy consumption, and much more across the water heater appliances. It gave the freedom to operate the system from anywhere, anytime via the Smart mobile app which is available on both Google Play and Apple App Store. HyperNym uses smart sensors and IoT gateways that are capable of attaching to any existing residential/commercial gas or electric water heater.

The Azure sphere-based solution helps customers to manage their appliances, reduce energy usage and even schedule their own service calls with an easy-to-use mobile application.

CLIENT TESTIMONIAL

"HyperNym IoT solution reduced the energy consumption of appliances by a margin of almost 60% leading to lower electricity costs and no energy wastage. With HyperNym Smart Mobile App, the sales of El-Araby group grew by a margin of 25-30% resulting in higher profit margins and production rates."

Essam Gouda Elsayed Mouafy, Dir. R&D, Toshiba El-Araby Group

KEY FEATURES OF SMART HEATER SOLUTION



Complete Visibility

Gain complete visibility of all aspects of the water heater,



Control & Monitoring

Monitor parameters such as temperature, water level, energy consumption, and much more.



Reduce OPEX

Take actionable decisions of operations through realtime data.



Improved Capabilities

Helped the vendor to improve service and technological capabilities by improving the service



Predictive Maintenance

Be alerted when a device requires servicing and reduce the downtime by scheduling maintenance.



Energy Efficiency

Using data on key parameters, manufacturers can make appliances more energy efficient.

CUSTOMER BENEFITS

HyperNym has years of experience in product development and in-house expertise for design, development, validation, manufacturing, and testing of IoT based cloud applications. HyperNym helped the OEM deliver a robust end-to-end solution within defined timelines that enabled El Araby to achieve faster time to market and promote their Tornado Smart Water Heaters.



CORPORATE OFFICE

HyperNym FZ LLC
1st & 2nd Floor, Plot No. 195
Street No. 1, I-10/3
Islamabad, 44000

UAE OFFICE

HyperNym FZ LLC
Shatha Tower
Al Sufouh 2
Dubai, 00000