



NXP i.MX 6UL processor gets IoT gateway up and running fast for Wally Labs

What if something goes wrong at home when no one's there? Wally helps you avert disaster by instantly alerting homeowners to water leaks, changes in temperature, humidity, and open doors and windows.

Challenge: Make a fast, trouble-free transition to a new IoT gateway platform.

Solution: The NXP i.MX 6UL processor has a long history of IoT success, and provides access to a large portfolio of products for creating gateways and other home automation-related solutions.

Benefit: With the i.MX 6UL's rich feature set and the support of a dedicated deployment team, Sears got a powerful new WallyHome gateway up and running in mere weeks.

PROBLEMS AT HOME? WALLY LETS YOU KNOW.

It's every homeowner's nightmare: The leaky water heater that floods the basement while they're unaware upstairs. The AC that quits working in the middle of a two-week summer vacation, or the black mold that's spreading behind the fridge where there's a crack in the water line. In the past, there was no way to know there was a problem other than to discover it after the fact – often far too late to do much about it.

Wally is changing all that. It's the home sensing system that uses the Internet of Things (IoT) to integrate a variety of home monitoring capabilities into a single solution. Wally detects water leaks, changes in temperature or humidity, and the opening of doors or windows – and alerts the homeowner and emergency contact list to events via phone call, push, text or email notification.

Getting an alert from Wally can mean the difference between a costly disaster and a minor problem. In fact, one insurance risk study concluded that up to 93% of the cost of water damage over a two-year period could have been prevented or minimized by an automatic water-leak detection and shut-off system.

HERE A SENSOR, THERE A SENSOR.

Wally is an IoT-driven solution that works by gathering data through a system of connected sensors and a central communications hub. It's easy for any homeowner to install, requiring just three simple steps:

1. *Place sensors* near plumbing fixtures, water based appliances, by doors and windows, and in other problem prone areas.
2. *Connect the hub* to the Internet via WiFi or Ethernet.
3. *Download the Wally app*, set up a user account and follow the prompts to add sensors to the network.



The hub communicates with the Internet and mobile devices, while the sensors themselves stay connected to each other through Zigbee. When a sensor detects a problem, it sends an alert that shows the homeowner what's happening and where.

Wally systems are designed to scale and expand over time, through development of additional capabilities and compatibility with other smart home devices that enhance the solution.

WALLY MAKES IT POSSIBLE. NXP MAKES IT WORK.

The technology behind Wally was acquired by Sears Holdings Corporation as a strategic addition to its Connected Living Business. The first generation of the technology focused primarily on detecting water leaks; when Wally Labs decided to expand that to include other types of monitoring, the development team began looking for a new gateway platform to support the next generation.

NXP's i.MX 6UL applications processor proved the best choice to meet Wally Labs' three primary criteria:

1. IoT experience
2. A feature set well-suited to gateway development
3. A high level of security appropriate to private-home environments.

"We needed a good amount of performance for Wally to efficiently process all the data coming into the hub and in order to send out timely alerts," says Ryan Ciovacco, President of Connected Living and Wally Labs. "Privacy and security were also imperative to ensure system integrity could not be jeopardized."

Beyond the processor, NXP was also able to provide Wally Labs with its TFA9882 audio amplifier to enable a noise alarm for Wally. The alarm sounds locally to instantly alert anyone nearby of a problem. The TFA9882 features digital audio inputs to avoid RF interference with analog signals in smart home settings, and its small-scale package minimizes the amount of board space it requires.

But Ciovacco wasn't just concerned with specific products and parts.

NXP TECHNOLOGY FOR WALLY

- i.MX 6UL: i.MX 6UltraLite Applications Processor – Lower-power, secure, ARM® Cortex®-A7 Core
- TFA9882: 3.4 W I²S input mono class-D audio amplifier

NXP DEVELOPMENT TOOLS FOR WALLY

- MCIMX6UL-EVK: i.MX 6UltraLite Evaluation Kit

"We needed to get up and running quickly with the new gateway to speed our time to market with the next generation of the technology," says Ciovacco. "Only NXP could provide us with the combination of IoT expertise, dedicated support and demonstrated success across the IoT ecosystem to make it happen."

Working with NXP, Wally Labs was able to get the new gateway up and running in weeks, and fully deployed in less than six months.

NXP: SMART HOME SOLUTIONS FOR THE INTERNET OF THINGS

NXP's robust portfolio of smart home solutions makes homes more connected, convenient and secure. We offer comprehensive solutions, each integrating a vast array of technologies critical for the creation of end products like smart gateways, smart lighting and smart access for buildings and homes. If you're designing innovative connected consumer applications, you need cost-effective solutions that raise the performance bar in integration, efficiency and functionality. To complete or customize your consumer system, our portfolio gives you an outstanding choice of leading ICs and discrete components.

ABOUT WALLY LABS LLC

Acquired in 2015, Wally Labs is a subsidiary of Sears Holdings Corporation. Wally has maintained its innovation and technical expertise, and is now backed by the logistical and operational resources of a Fortune 150 company, as well as the unparalleled advantage of a close partnership with the nation's largest home services provider.

Wally Labs is a sensor and services platform company for the connected home, focused on home safety, security, and loss prevention. Its technology provides homeowners with state-of-the-art coverage and sensor longevity for environmental hazard detection. Its customers use its devices, in connection with its monitoring service, to discover and alert themselves when a harmful event occurs in their home. Wally Rapid Response partners with ServiceLive's nearly 34,000+ certified and screened service professionals to dispatch the appropriate service professional to fix the problem. ServiceLive is a division of Sears Home Services.

For more information, visit WallyHome.com.

For more information on NXP's smart home solutions, visit nxp.com/SmartHome

To learn more about how Wally is powered by NXP technology, visit nxp.com/Wally

www.nxp.com

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The logo for Wally, featuring the word "wally" in a lowercase, orange, sans-serif font. The letter 'y' has a long, thin tail that extends downwards.