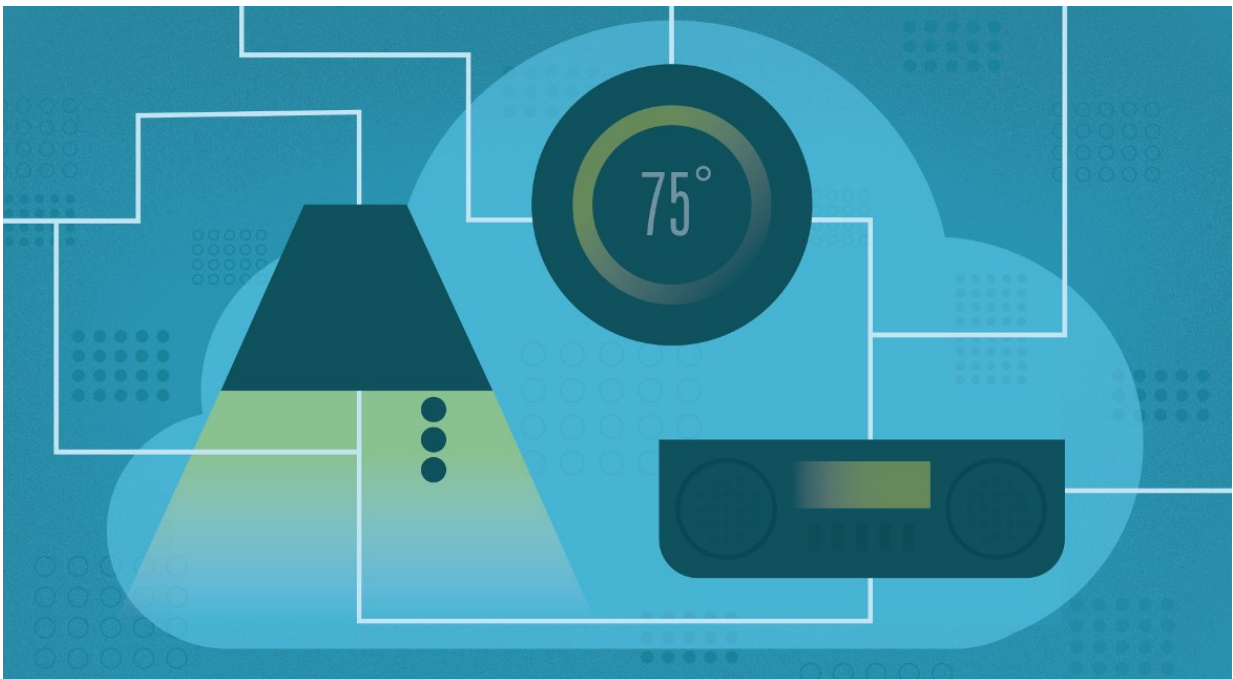# Mozilla's Things Gateway to help bridge communication gap between home devices

February 8 2018, by Nancy Owano

Credit: Mozilla

Want to build your own smart home hub where gadgets actually talk to each other? Mozilla's Project Thing has a devoted group of people who want to help you do that.

Flashback to June last year. Ben Francis said the team at Mozilla was working on a Web of Things framework of software and services. He

said the goal was bridging the communication gap between connected devices. They were to provide the devices, he said, with web URLs and a standardized data model and API.

A more decentralized Internet of Things that is open, interoperable, safe? Sounded like a plan. The Mozilla Blog on Tuesday let the public know it has a new version of its Project Things IoT gateway.

You can control all your smart home devices via a single web interface using a Raspberry Pi.

This Things Gateway is an open source home-automation control solution, said Lee Mathews, *Liliputing*, and runs on the Raspberry Pi.

Mozilla made it official with this 2018 update: "Today, we are pleased to announce that anyone can now build their own Things Gateway to control their connected device directly from the web."

Also on Tuesday, Ben Francis posted a tutorial on how to build a "private smart home" with a Raspberry Pi and Mozilla's Things Gateway

Once that Gateway is set up, it guides you through the process of connecting to your network and adding devices. You get a secure URL for accessing and controlling your connected devices from anywhere.

The blog mentioned "a new experimental feature" using voice-based commands.

Liliputing commented on Mozilla's voice assistant. "It responds to spoken commands the way Alexa, Google, or Siri would," but data processing happens on Mozilla servers with their own speech engines; the user's voice does not leave Mozilla's servers.

All in all, the blog stepped readers through the features of the latest release of the Things Gateway, including:

The ability to use the microphone on your computer to issue voice commands; rules engine for setting 'If this, then that' logic for how devices interact with each other; floor-plan view to lay out devices on a map of your home; device type support; add-on system for supporting new protocols and devices; a system for safely authorizing third-party applications, via OAuth.

Mozilla envisions an open and decentralized Internet of Things with standard data models and APIs to make them interoperable. Simply put, the goal is that devices talk to each other.

How to make this happen apparently needs some thought. Harry Fairhead, *I Programmer* on Wednesday offered some serious points to consider.

First off, regarding the whole issue of Internet of Things and interoperability: "The IoT is a tempting morsel for open source enthusiasts. Currently the scene is a mess with companies using all sorts of standards and all competing for the huge potential profits that are bound to come to any dominant player."

But, he wrote, how easy is to pull all of the competing standards and devices into a single entity that is easy to use?

Fairhead said, "Easy to say, but incredibly difficult to actually do."

He added, "You might assume that this is due to manufacturers reluctance to share, and in many cases it is, but even without obfuscation it is difficult to get everything to work simply because they are complex systems."

So then we come to the gateway model. "As soon as you accept the gateway model your entire system is at the mercy of the entity running the server that the gateway connects to."

Fairhead also said, "The big problem is the tiny number of devices actually supported."

He wrote that "Overall it looks like a fun project." At the same time, "For this to work Mozilla needs lots and lots of open sourcers to write adaptors and generally see the project to maturity—at the moment it just doesn't have enough."

 More information: [blog.mozilla.org/blog/2018/02/ … necting-devices-web/](blog.mozilla.org/blog/2018/02/)