Open Translators to Things

A new open source project @ www.github.com/openT2T

Alpha version on 4/5/16: Participation welcome!

Microsoft

Consistent Experiences Delights Users and Developers

Interacting with a “Thing”

How do you turn on a Light? Do you need a different user experience for different manufacturers or when different Lights or Sensors use different protocols?

What is a “Thing” ?

What is a Thermostat? What is a Light-Switch? What are the minimum set of methods and properties shared by all Light-Switches? There are many competing industry answers today

The need for Schemas

Common “Schemas” describe the capabilities of similar devices, across protocols.

The need for Translators

Translators translate between common schemas and capabilities of actual Things

Home

Industry

Open Translators to Things Pillars

Open

GitHub

Open Standards

Cross-Platform

Protocol Independent

- Open Source, supports Open Standards, Protocol Independent and Cross-Platform
- Windows, OS X, Android, Azure and AWS supported initially
- Other platforms will be added by the community, as long as the Translators work cross-platform

Schemas

- Schemas are created by the Industry, Standards Organizations or Open Source projects
- Schemas are referenced by Translators
- AllJoyn Schema syntax used initially
- The Schema syntax will evolve to use one or more popular schema standards, including OCF

Translators

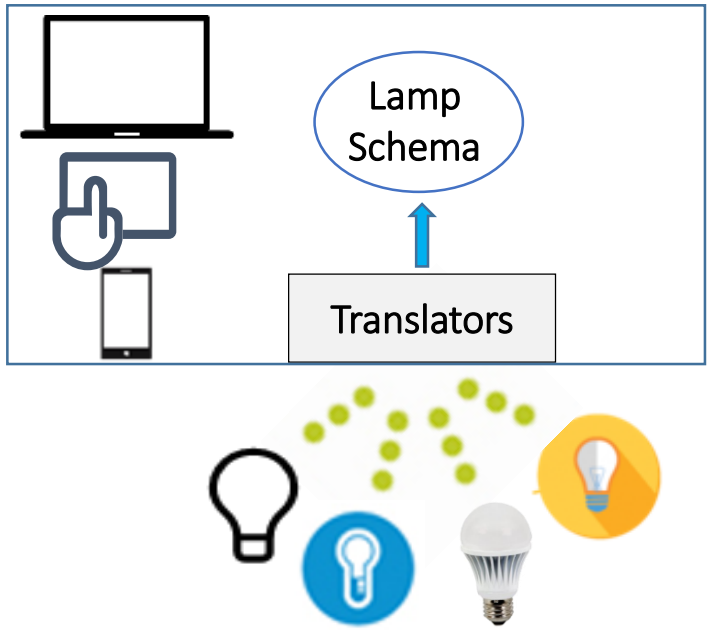
- Developers create Translators from Schemas to similar Things
- Supports JavaScript and Node.js initially
- Developers use cross-platform Node libraries to access protocol buses
- Other languages (e.g. C++, etc.) to be added by the community, as long as they access cross-platform networking libraries

Devices & Cloud

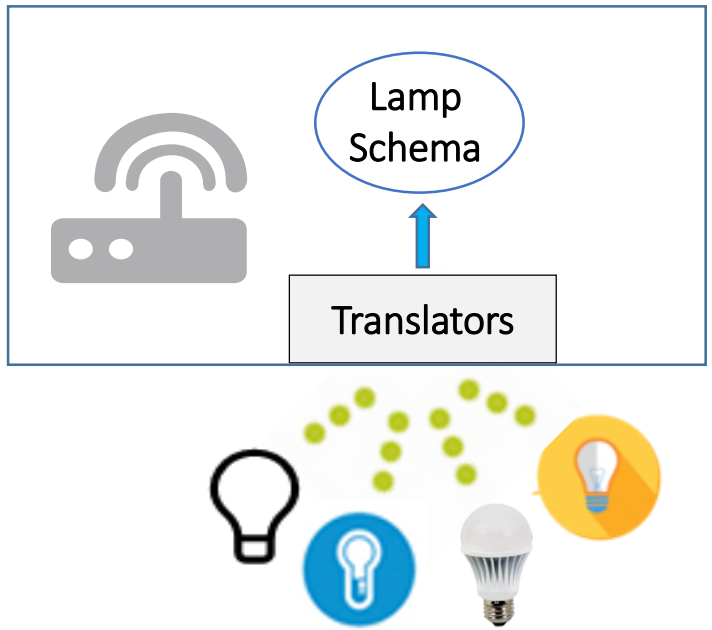
- Translators run on devices for proximally connected Things
- Translators run on the cloud for cloud-connected Things
- Translators run on Gateways for gateway-connected devices, marshalled from the cloud

Translators can run on Devices, Gateways or Cloud

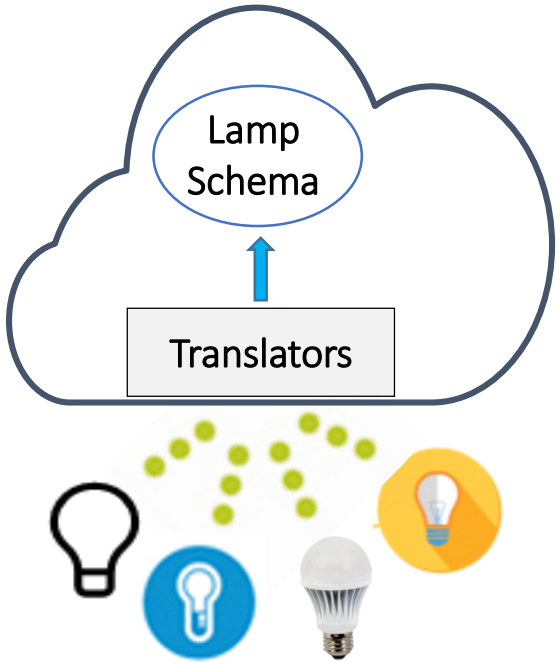
Translators run on devices for proximally connected Things



Translators run on Gateways for gateway-connected Things and marshalled from the Cloud

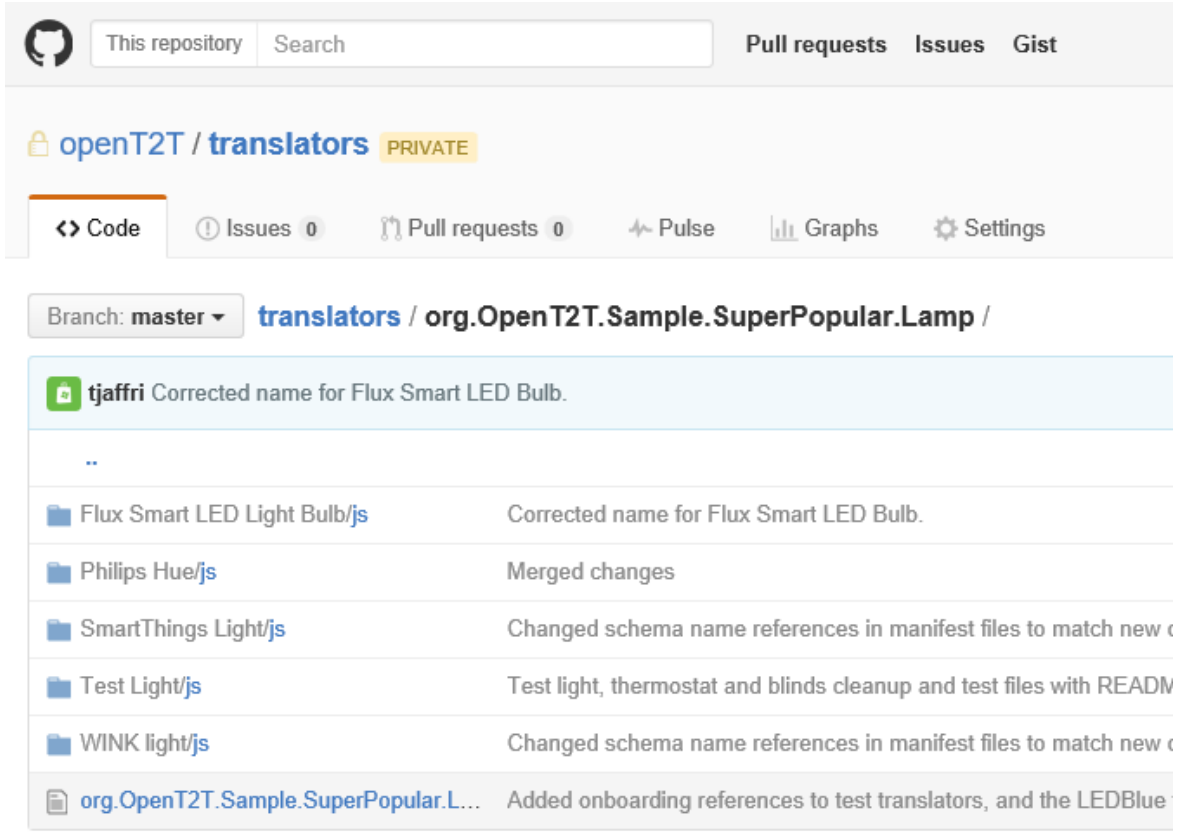


Translators can run on the Cloud for Cloud-connected Things



Contribute and build translators for your favorite Things for a consistent experience with Cortana, Consumer & Industry IoT Apps

www.github.com/openT2T



Pick a Schema

Find a schema that corresponds to your Thing category - e.g. the "SuperPopular.Lamp" sample. It is best to use schemas created by standard bodies or schemas that are popular in the industry.

Write a Translator

Write a Translator for your Thing, and send us a Pull Request. Create a folder with a unique product name that identifies your hardware. E.g. "Philips Hue"

Build Apps, Associate Voice

Build a Device Cloud App that uses the schema you picked. Associate Cortana or other assistant to the schema. By using the schema, you will have a consistent experience with all other Things translated to the schema.

Make OpenT2T better

Contribute to the project, and discuss with the community. Participate in making the cli, translator, console, onboarding, debugging tools (and much more) better. Coordinate with other IoT projects.