



Internet of Things at Home

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Quick Introduction

- Engineering Manager overseeing Cloud-to-Cloud Connected Device Integration, Cloud Services (Weather, Air Quality, Energy), MQTT Devices and Matter Cloud
- Spent last 6.5 years at SmartThings working in various teams
- Experience with Zigbee, LAN connected devices, Samsung TV LAN integration and C2C Devices
- Work closely with partners across the industry like Ring, Arlo, Google, Philips Hue, etc

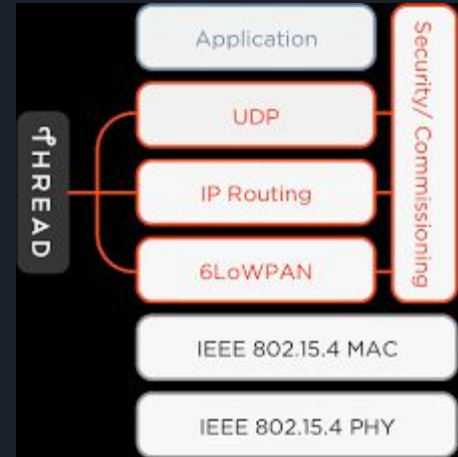


IoT Landscape Today

- Hub connected devices like Zigbee, Z-Wave and LAN devices
- Proliferation of Cloud to Cloud devices with rise of Amazon Alexa and Google Assistant
- Apple Homekit brought back LAN devices with their SDK
- Chaos with the ecosystem battles with duplicate work for manufacturers

Thread

- Thread rises as alternative to WiFi and BLE devices
- WiFi drains battery and creates congestion in 2.4 GHz network
- BLE requires user presence and thus lacks automation
- Strong support for Thread from Google and Apple

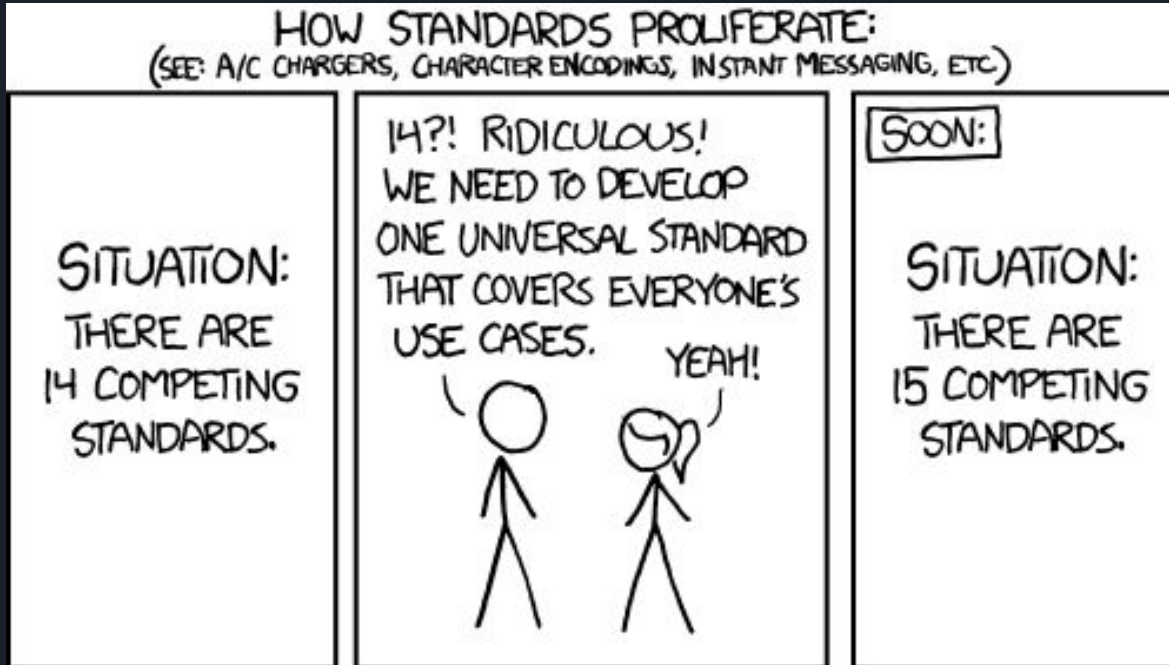




Thread Benefits

- Support for low power devices with IPv6 connectivity
- Convergence and Coexisting. Multiple application layers in a single thread network and Matter protocol coexisting across WiFi and Thread
- End-to-end Routing and Addressability
- Potential to leverage IPv6 for cloud connectivity

New Standard



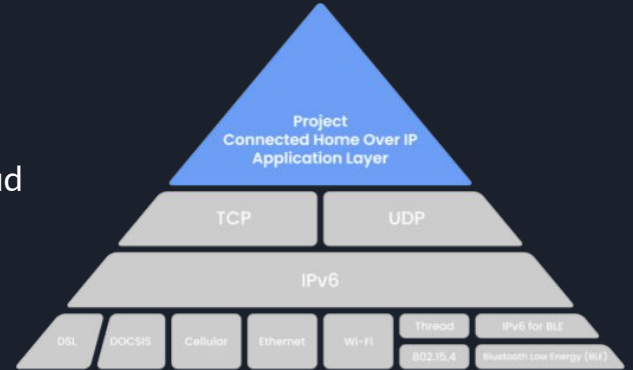


Matter (Project CHIP)

- Launched in Dec '19 by Amazon, Apple, Comcast, Google, SmartThings, and the Connectivity Standards Alliance (formerly Zigbee Alliance)
- Availability of new products most likely Q1 '22, final spec ready by end of '21
- Existing ecosystems like Philips Hue, Lutron plan to use their bridge to support Matter (cross protocol support)
- Support from key IoT white label manufacturer like Tuya

Matter (Project CHIP)

- IPv6 based, Open Source, Secure
- Local connectivity supports strong privacy, whereas cloud connectivity brings in ease of use and AI
- Simplifying connected Experiences
- buildwithmatter.com





IPv6 to the rescue

- CHIP 1.0 spec doesn't specify cloud connectivity layer
- Manufacturers looking forward to leveraging IPv6 to connect device directly to the cloud
- Lower cloud cost compared to today where manufacturers seems to be stuck in a ponzi scheme^[1]
- Separate Fabric network with certificates for secure communication



Additional Links

- [1] - <https://staceyoniot.com/avoiding-the-smart-device-ponzi-scheme/>
- <https://www.homesmartmesh.com/docs/frameworks/matter/>
- <https://www.silabs.com/support/training/project-chip-is-matter>
- <https://github.com/project-chip/connectedhomeip#readme>



Questions?