



LPWAN SERIES

**Presentation
Will Begin
Shortly**

tech **t**alks **UPCOMING SESSIONS**

FEB 16TH | Amazon Sidewalk: Using Battery-Powered Sensors

MAR 16TH | Getting Started with Amazon Sidewalk

APR 13TH | Introducing FG25 for Wi-SUN FAN 1.1

MAY 11TH | Optimizing FG23 for Battery Life & Performance

JUN 8TH | Designing Long Range Devices with Amazon Sidewalk

We will begin in:

0:00

2023



WEBINAR SERIES

Welcome

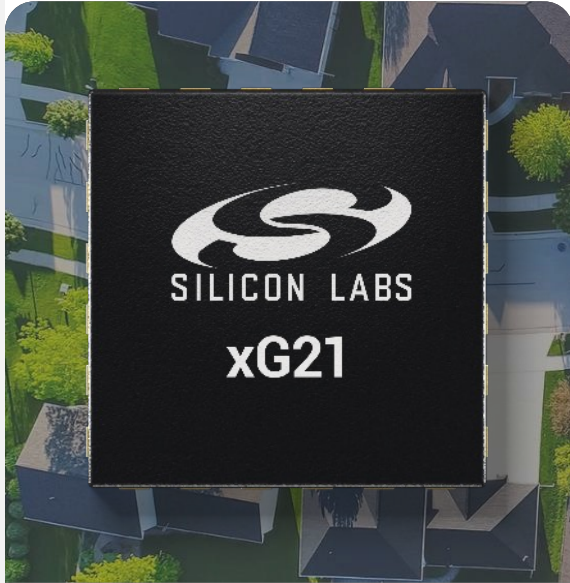
**Getting Started with
Amazon Sidewalk**

Fritz Werder | Julien Tiron | Chris League



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Silicon Labs' Amazon Sidewalk Portfolio



EFR32BG21

2.4GHz Bluetooth LE Radio + MCU

Secure Vault-High

Line Powered Devices

Ref. design for FSK/CSS with SX126x



EFR32BG24

2.4GHz Radio + MCU

Secure Vault-High

AI/ML Capability

Ref. design for FSK/CSS with SX126x



EFR32XG2X

Support for FSK + Bluetooth LE and
FSK only xG2x (Alpha 23Q2)



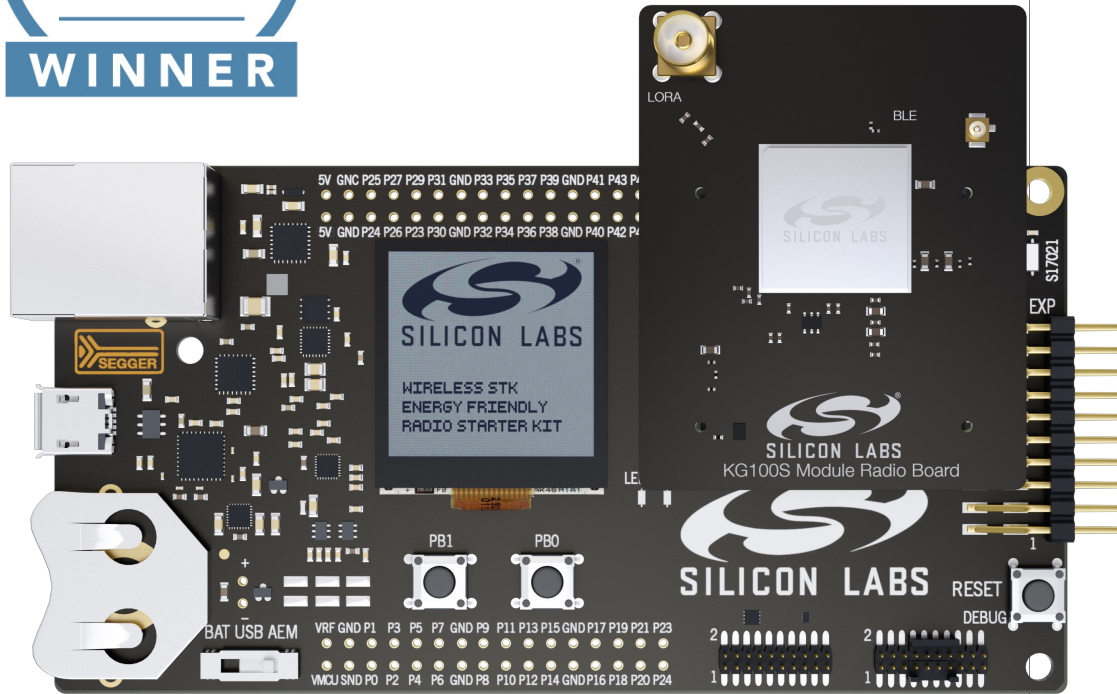
QUECTEL KG100S

Bluetooth LE/FSK/CSS PCB Module

Fastest Integration Path

Includes BG21 + SX126x

Embedded World 2023 Best in Show: Development Tools



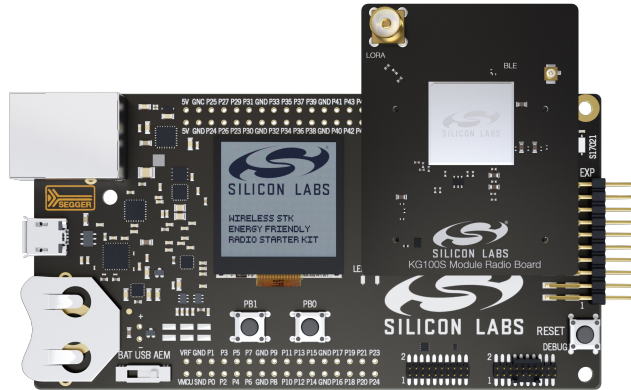
Pro Kit for Amazon Sidewalk

Winners in:

- Design Excellence
- Relative Performance
- Market Impact/Disruption

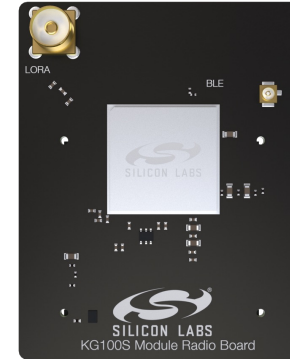
- **Simplicity Studio**, the integrated development environment (IDE) for all Silicon Labs technologies, provides the software for the entire Sidewalk development journey from start to certifying finalized code, into a guided, end-to-end process, maximizing innovation and working efficiency.

Development Kits



KG100S-PK6130A

- 1x WSTK Main Board
- 1x KG100S Radio Board (BLE, FSK, CSS)
- 1x BG24 Radio Board (BLE Only)
- 1x SX1262 Adapter Board
- 915 MHz Antenna
- Pre-flashed with OOB Demo and pre-registered with AWS



KG100S-RB4332A

- 1x KG100S Radio Board (BLE, FSK, CSS)
- 1x 915 MHz Antenna

Silicon Labs Expert Q&A



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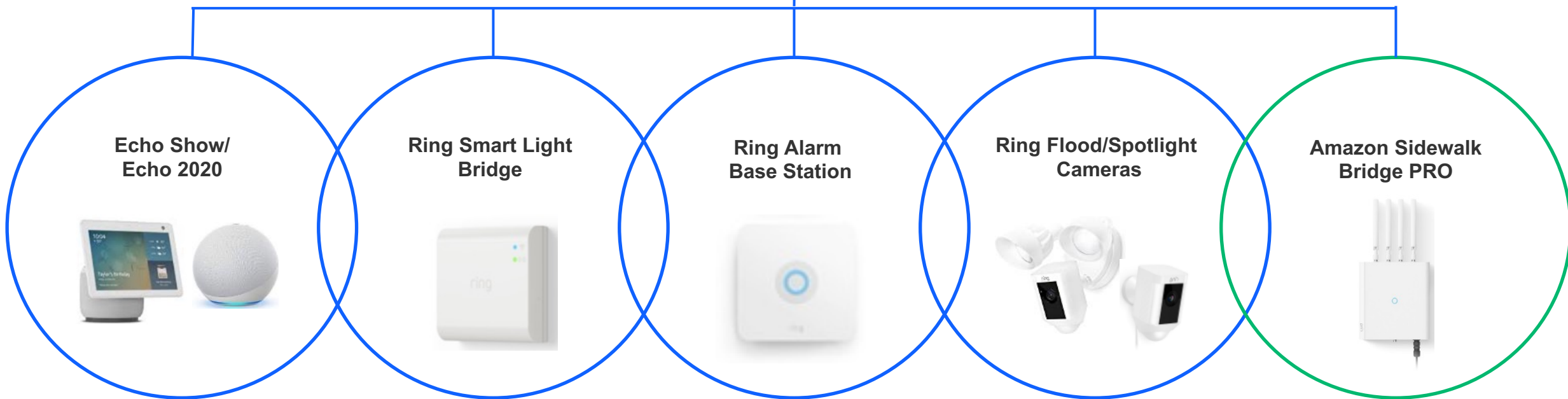
What devices support Amazon Sidewalk?

Products Enabling the Amazon Sidewalk Infrastructure



Leverage Amazon Infrastructure

- AWS
- Seamless setup
- Amazon.com



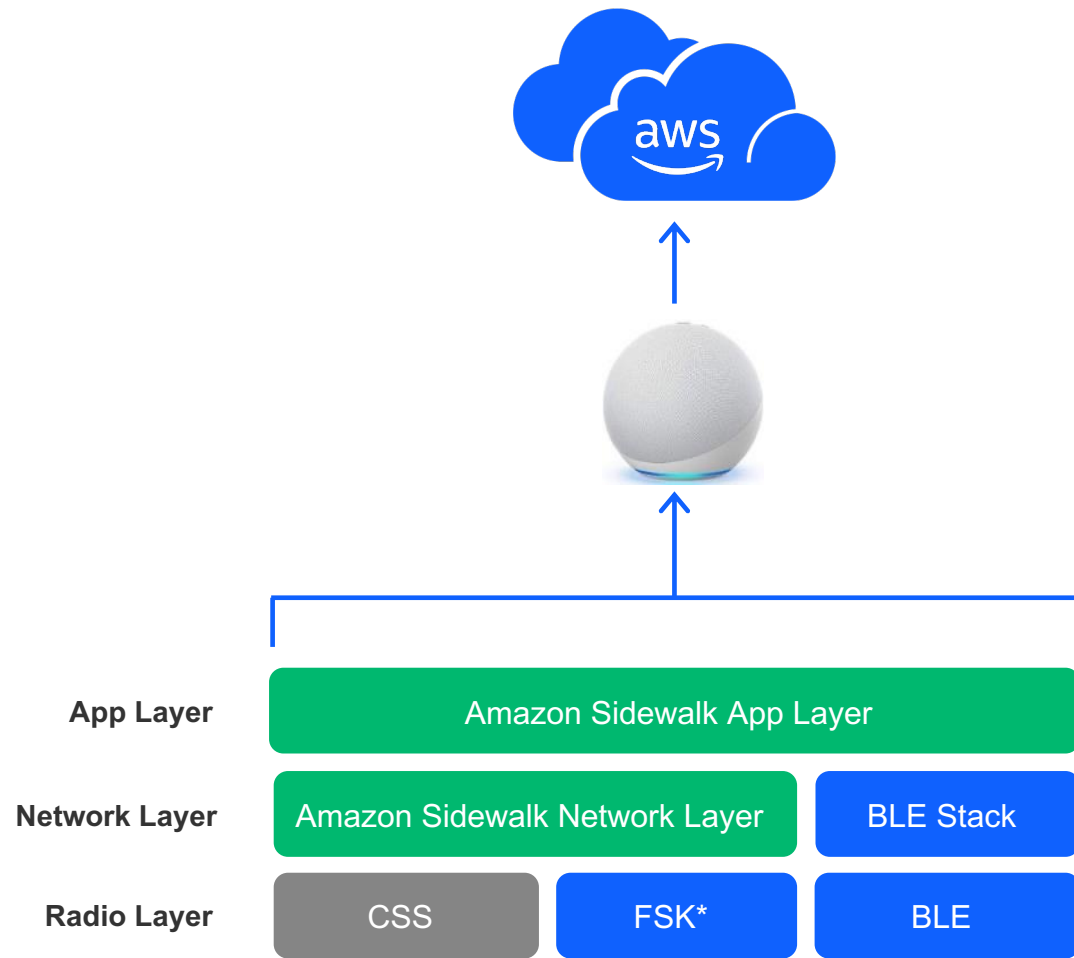
Only Amazon 1P products can be used for hubs, 3P hubs will be allowed later.

**Does my data have to
flow through AWS?**

The Amazon Sidewalk logo is centered within a blue circle, which is itself surrounded by three concentric white circles. The background of the entire slide is an aerial photograph of a residential neighborhood with houses, trees, and streets.

amazon sidewalk

Amazon Sidewalk Software Details



● Silicon Labs IP ● Amazon IP ● Supported through partners

*supported in roadmap products

- Protocol stack and application layer
- Must connect to cloud through AWS
- Data accessed through AWS IoT core
- Bridging to other clouds possible
- Using standard PHYs
- Vault level security required
- Will be governed by qualification program
- Currently available on GitHub for initial customers
- Silicon Labs will integrate Amazon Sidewalk in GSDK and Simplicity Studio

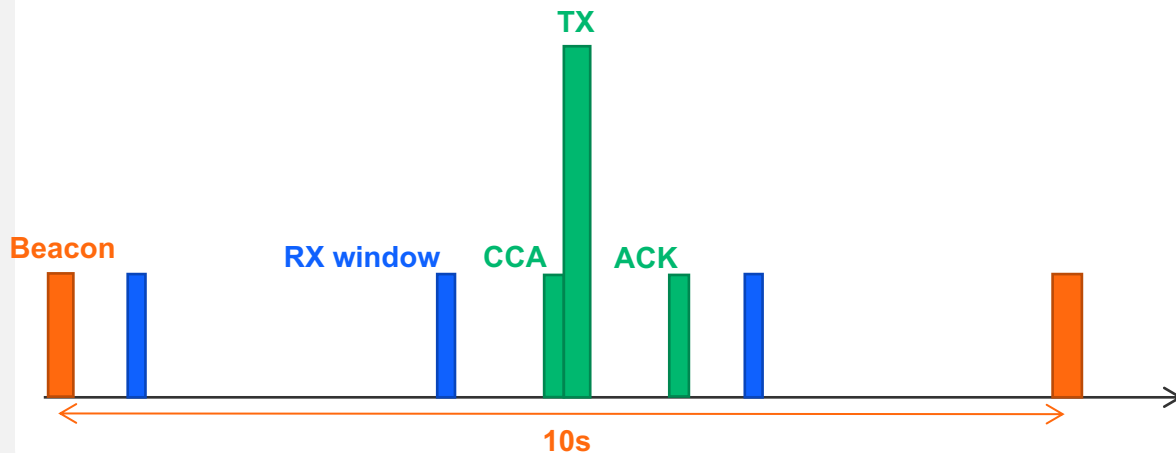
**Are there monthly fees to
use Amazon Sidewalk?**

What are the differences between the 900MHz protocols that are part of Amazon Sidewalk?

Sub-GHz Protocols Deep Dive

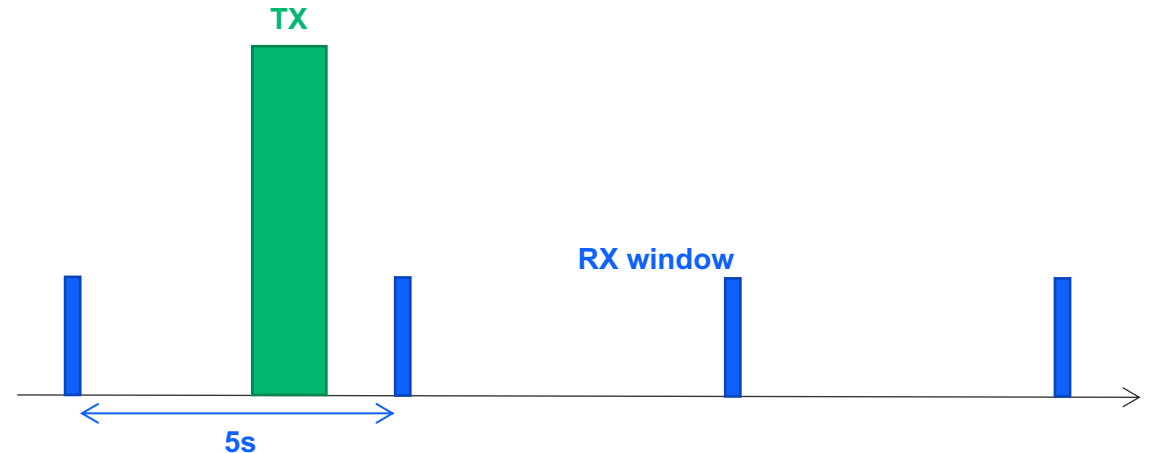
FSK (900 MHZ)

- Synchronous protocol: always connected to GW
- Connected through beacons every 10 seconds
- Listening windows and transmission opportunities in between beacons
- Different power profiles are available
 - Power profile 1: Configuration chosen by gateway
 - Power profile 2: Configuration chosen by the endpoint



CSS (900 MHZ)

- Asynchronous protocol: connects when needed
- Periodic listening windows (every 5 seconds)
- Transmissions when needed
- Different power profiles available
 - Power profile A: RX windows depend on TX
 - Power profile B: periodic RX



**Does Amazon Sidewalk
use standard LoRa[®]?**

**Do devices need to
support both Bluetooth
and Sub-GHz protocols?**



What role do mobile apps play within Amazon Sidewalk?

**What applications best fit within
the Amazon Sidewalk network?**

Amazon Sidewalk Applications Ideas

In Home / Beyond the Front Door



BLUETOOTH LE

Tracking
Theft Prevention

BLUETOOTH LE/FSK

Outdoor Lighting
Access Control
Water Mitigation and Control
Energy Conservation
Appliance Predictive Maintenance

Beyond the Fence



BLUETOOTH LE/FSK/CSS

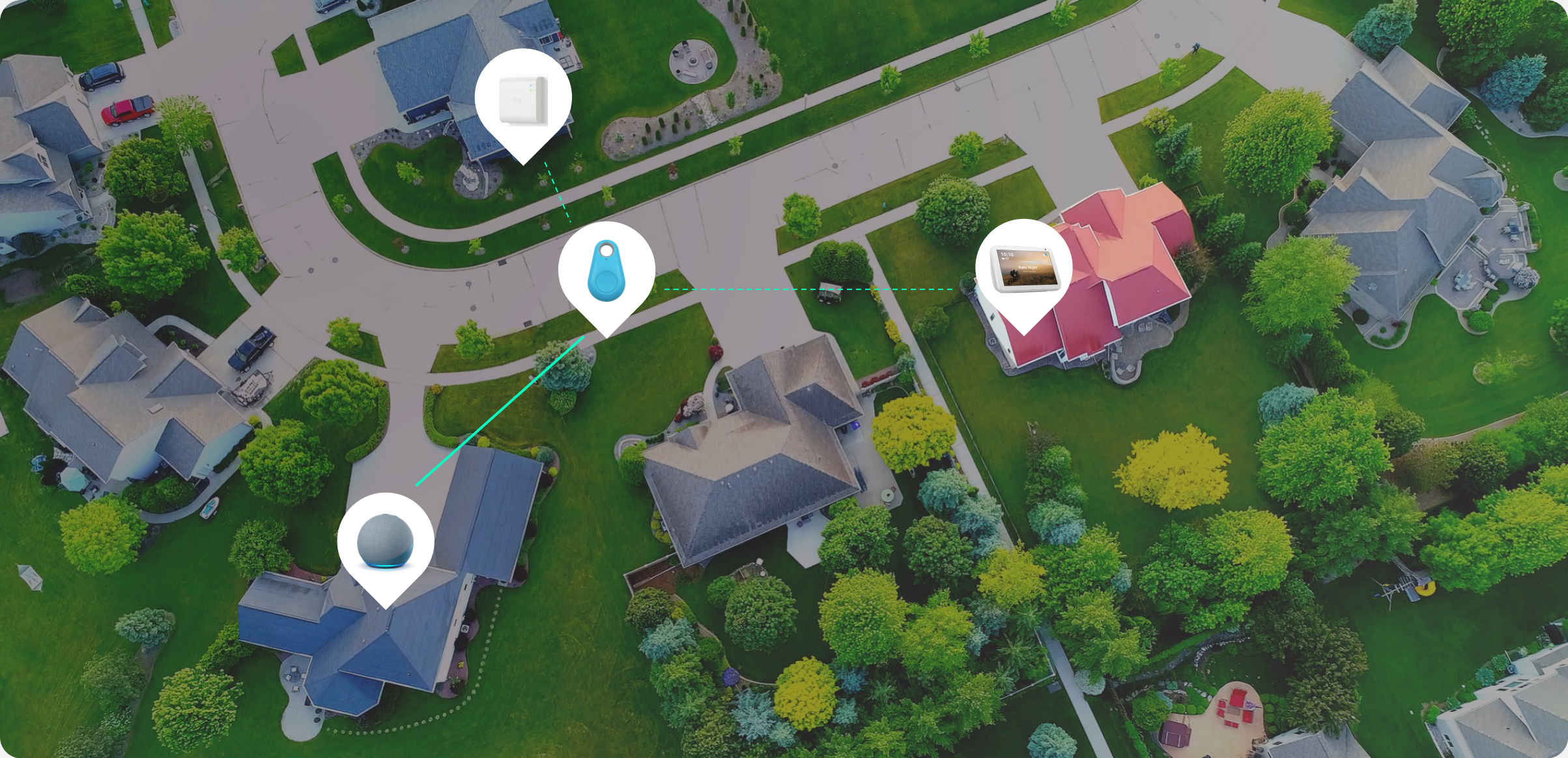
Parks Management
Environmental Management
Forest, Agriculture and Farms
Building and Campus Management
Airports



How big is the Amazon Sidewalk stack?

**How are roaming devices handled
in the Amazon Sidewalk network?**

Roaming Sidewalk Devices

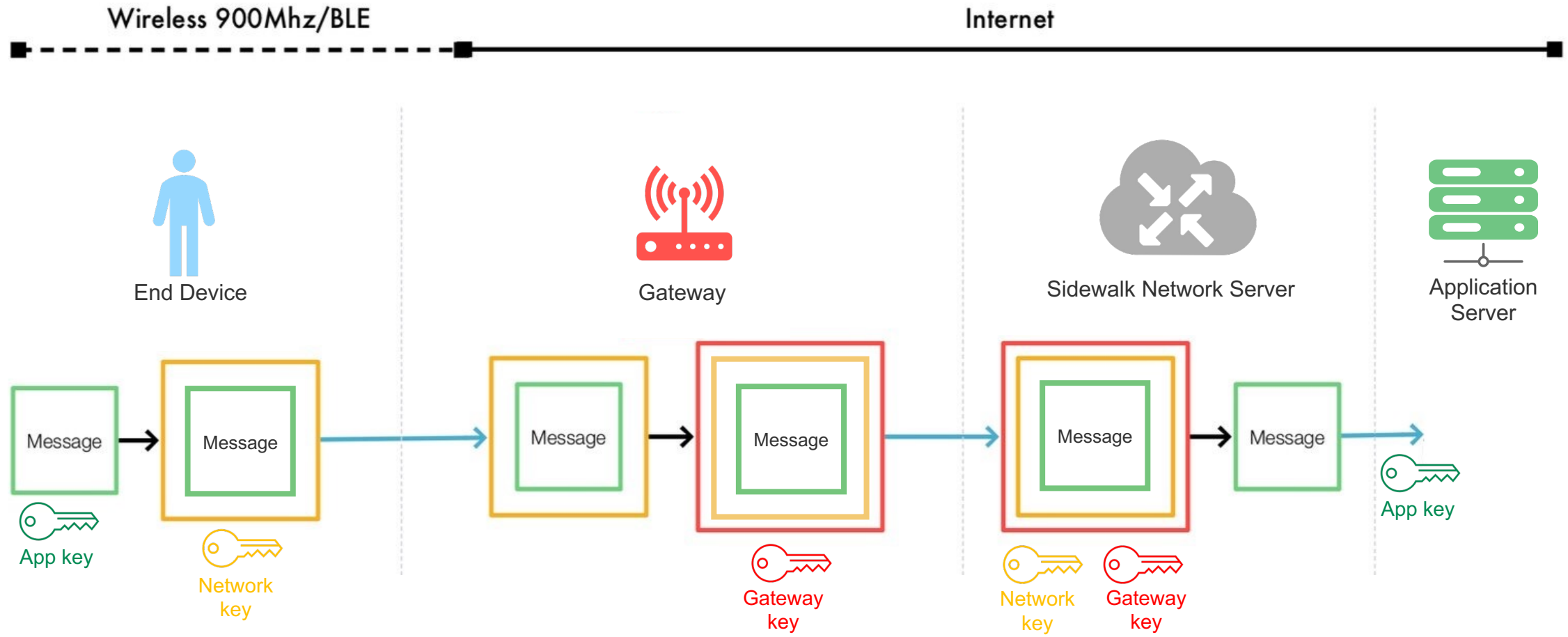


Does an owner of an Amazon Sidewalk device need to also own a Sidewalk Bridge?

Will Amazon Sidewalk be available internationally?

**How is security handled
within the Amazon
Sidewalk network?**

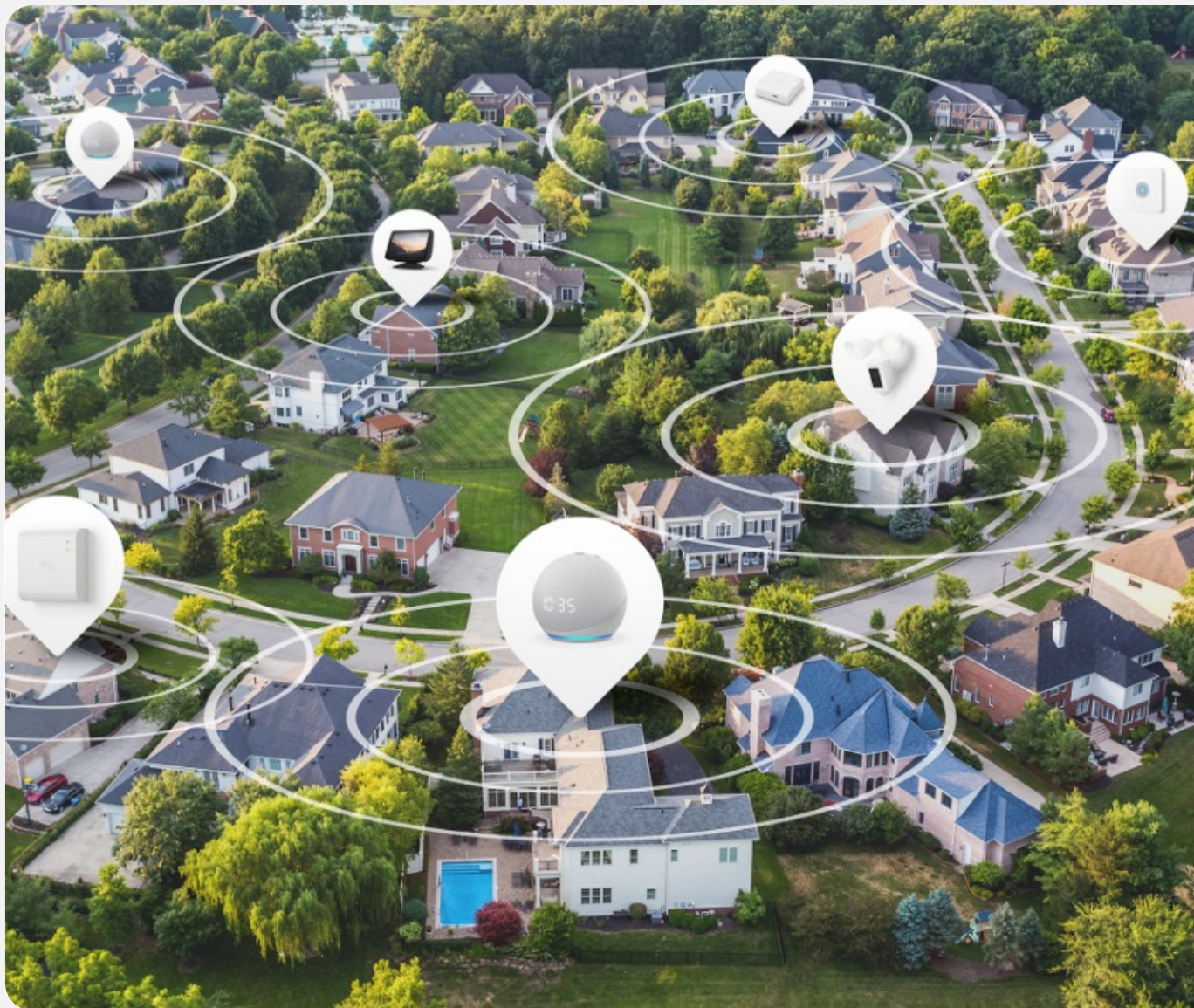
End-to-End Security



How will Amazon Sidewalk co-exist with Matter?



Amazon Sidewalk Delivers Significant Value



- Range extension
- Frustration free setup / automatic connection
- Remove need for proprietary gateway
- Reliable connectivity where otherwise isn't present today
- Free alternative to transport data to the cloud
- Transcend home ownership while device remains connected

**Is there a qualification program
for Amazon Sidewalk Devices?**



Thank You



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Watch  ON DEMAND

silabs.com/training

Q&A



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INVITE COMING SOON

Exclusive Webinar: Amazon Sidewalk Developer Journey, Pro Kit Unboxing and Set Up Walkthrough



**Join Us
Next Month**

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