



# A New Foundation for the Connected Home

Qualcomm Technologies, Inc.

June 2017

@qualcomm

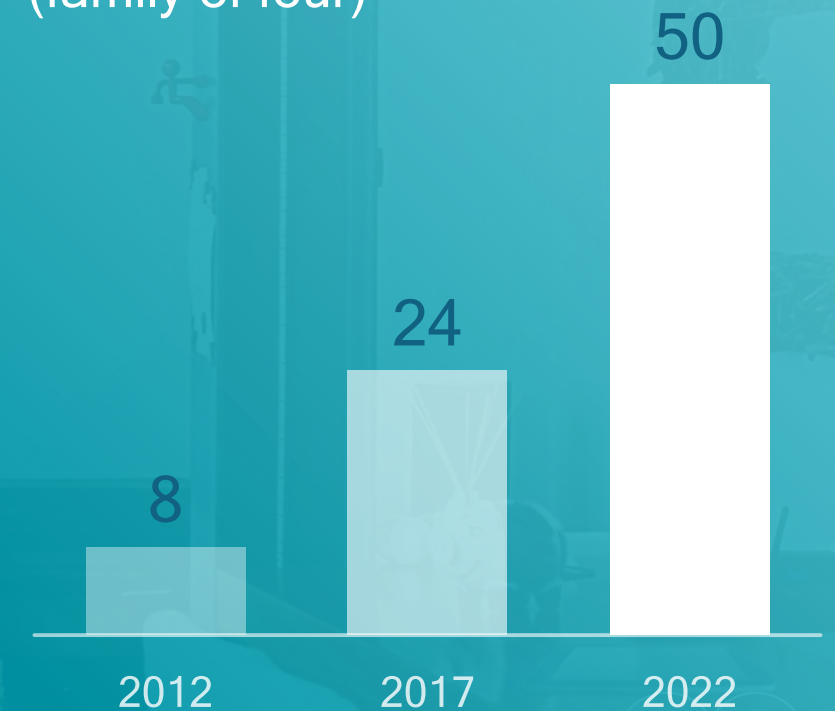
The connected home  
is evolving at a  
breakneck pace

---





## Number of connected devices per home (family of four)



SOURCE: Connected devices—GSMA connected living 2015



# Skyrocketing data and media consumption

~71GB

of data per  
user/month\*

165GB

by 2020

\* SOURCE: Cisco VNI Forecast June 2016

# IoT is facing more complexity and fragmentation

## Islands of connectivity



## Varied ecosystems

Apple HomeKit

Weave

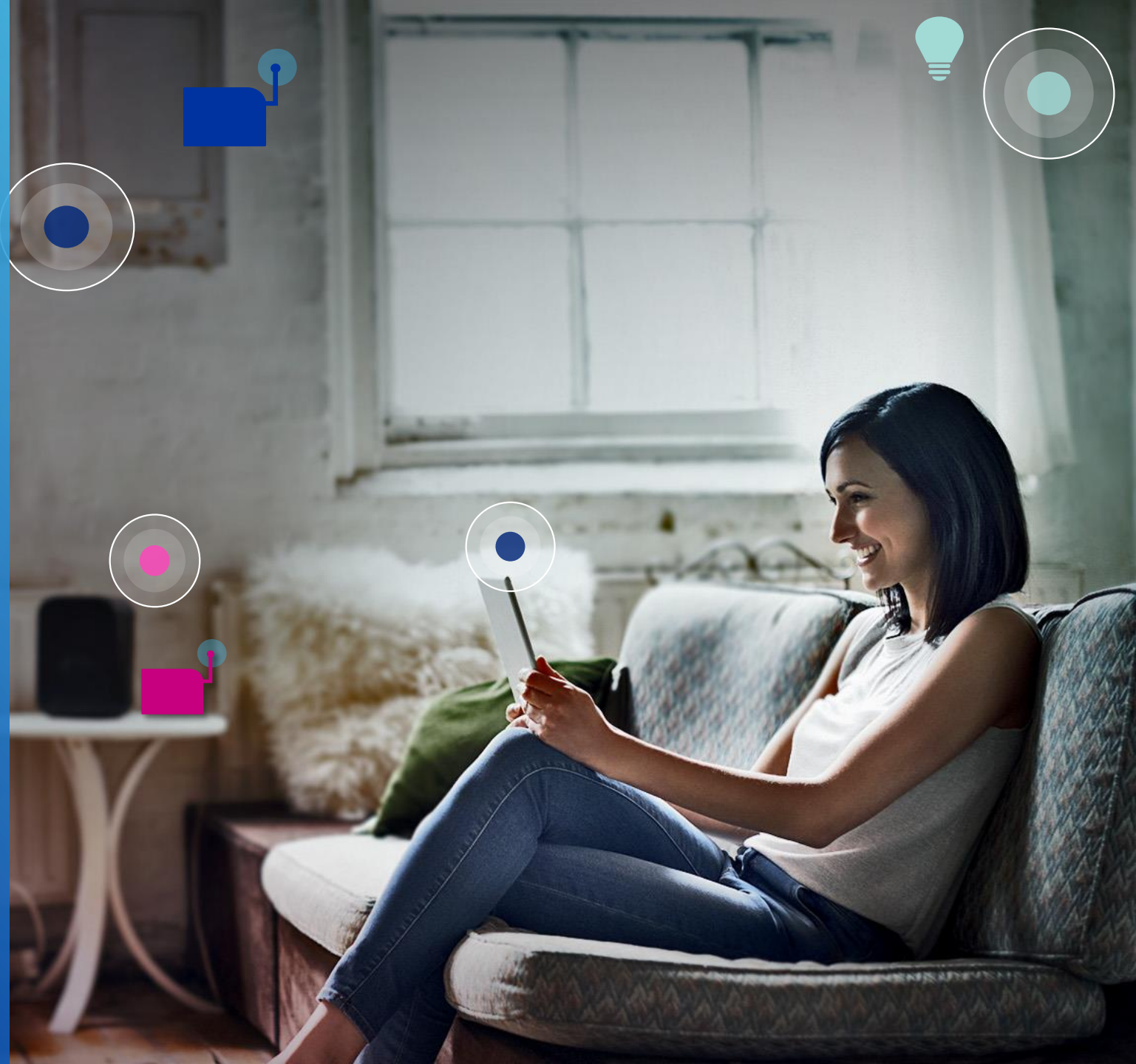
SmartThings

IoTivity

## Input & control

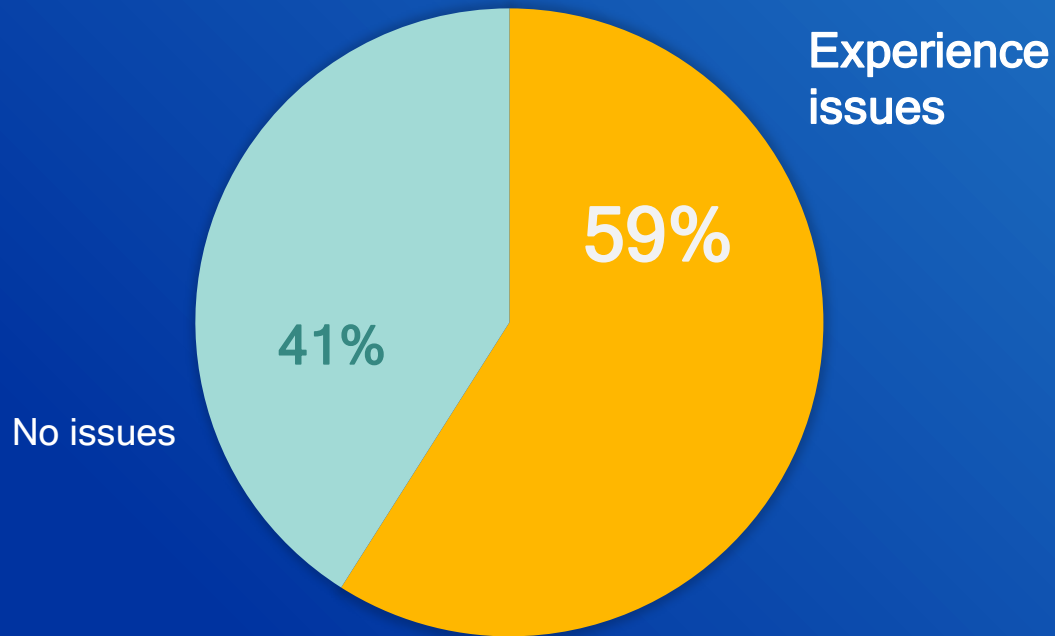
amazon alexa

Google



# Current home networks aren't sufficient

Nearly 60% of US router users experience issues with their home network



## Top Issues with Current Router



**24%**  
Connectivity stops, slows, or not stable



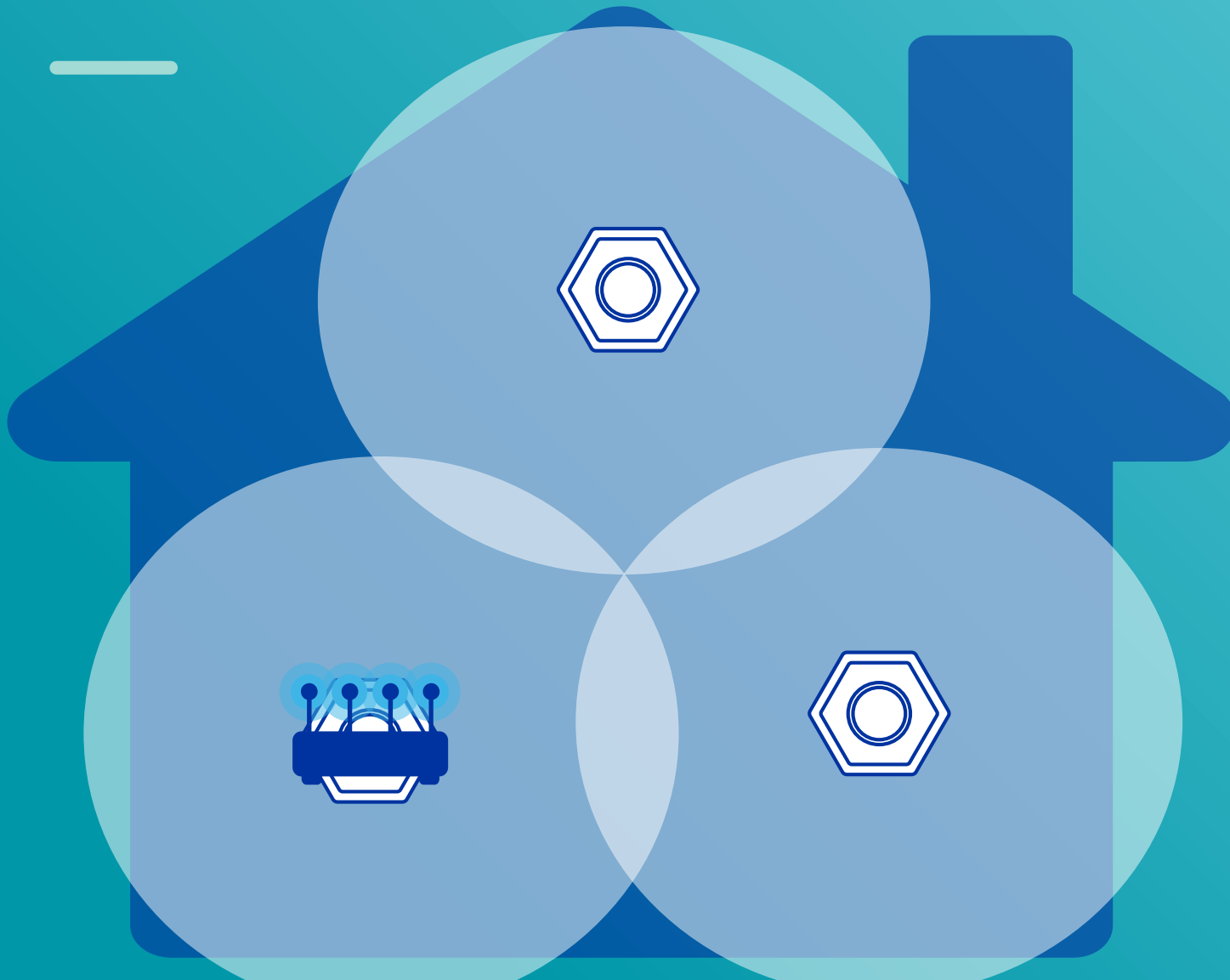
**23%**  
Buffering, lags and glitches when streaming



**20%**  
Dropped connections on certain devices

# A new connectivity model emerged to address new needs

## Mesh networks



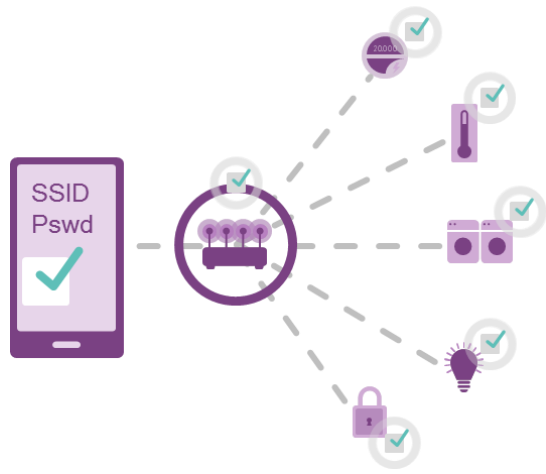
---

Multiple nodes blanket the whole home with connectivity

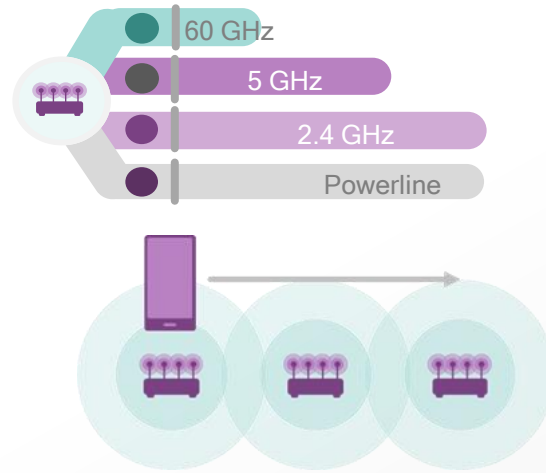
Set it and forget it

Automatically detects and fixes connectivity issues

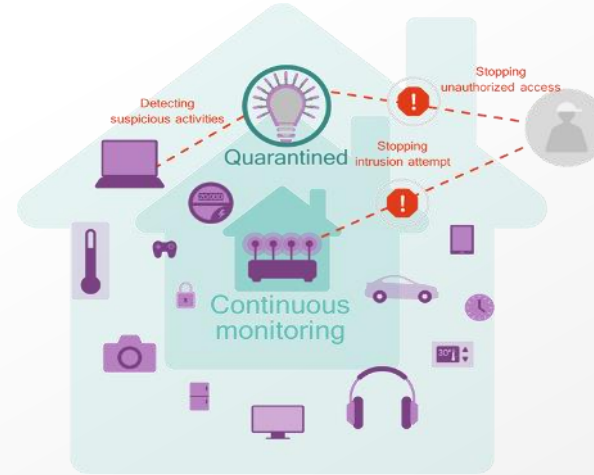
---



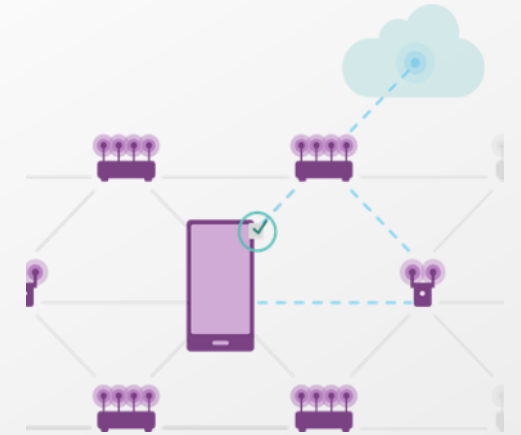
Self-configuring



Self-managing



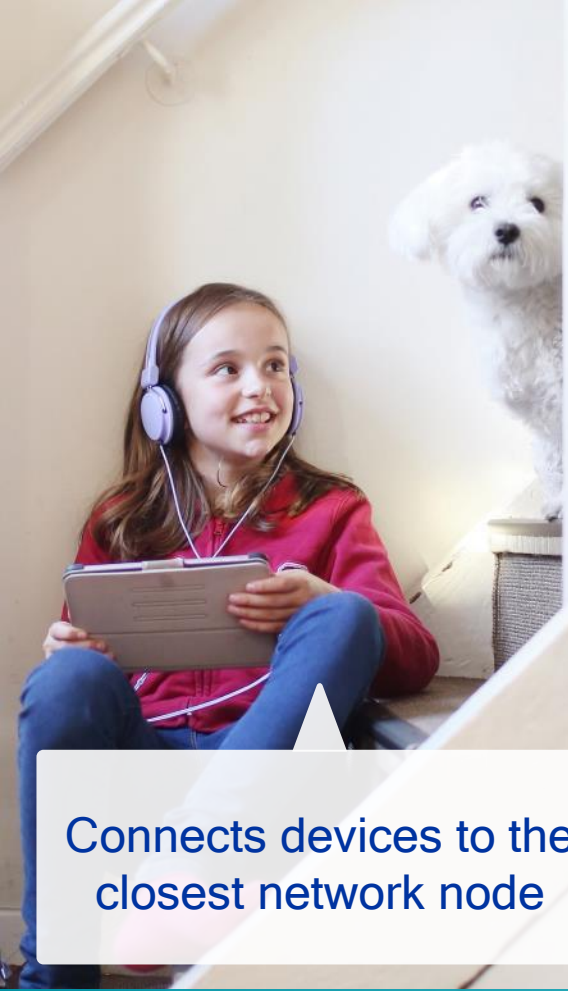
Self-defending



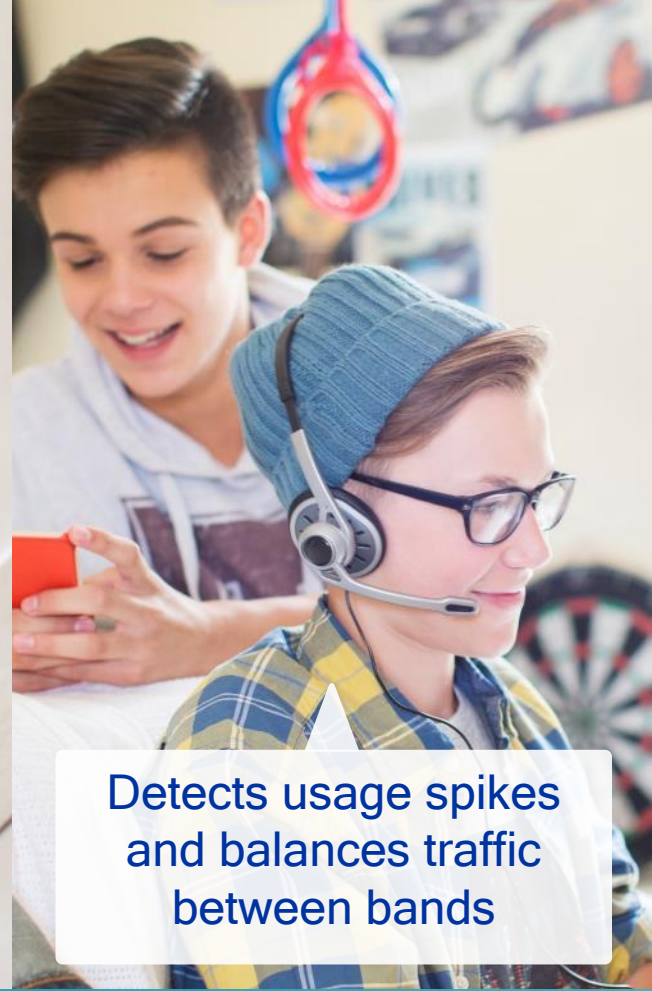
Self-healing

# Qualcomm® SON (self-organizing networks)

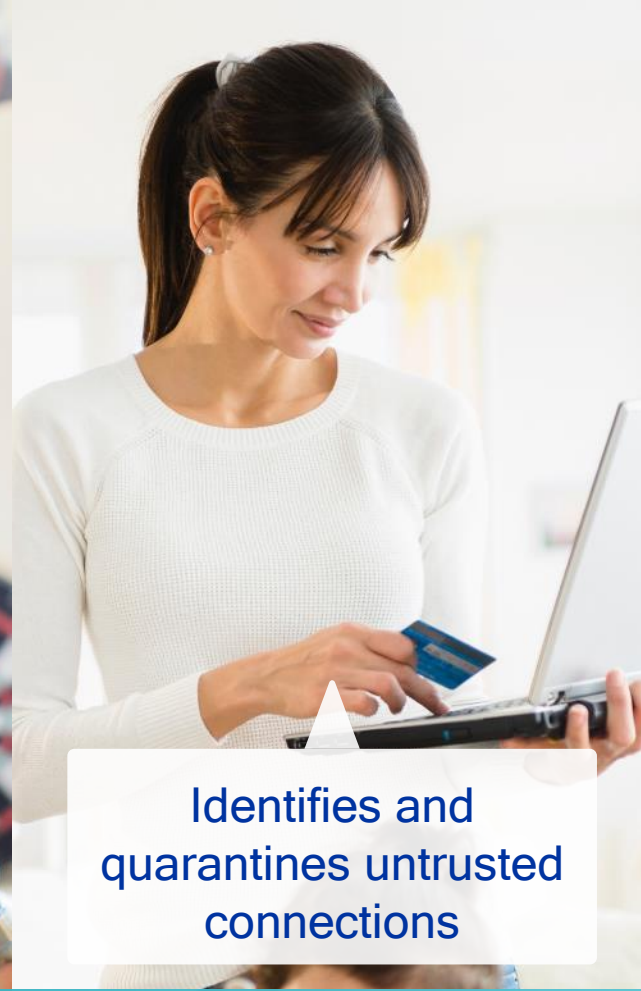
Transforming in-home Wi-Fi with greater simplicity, coverage and intelligence



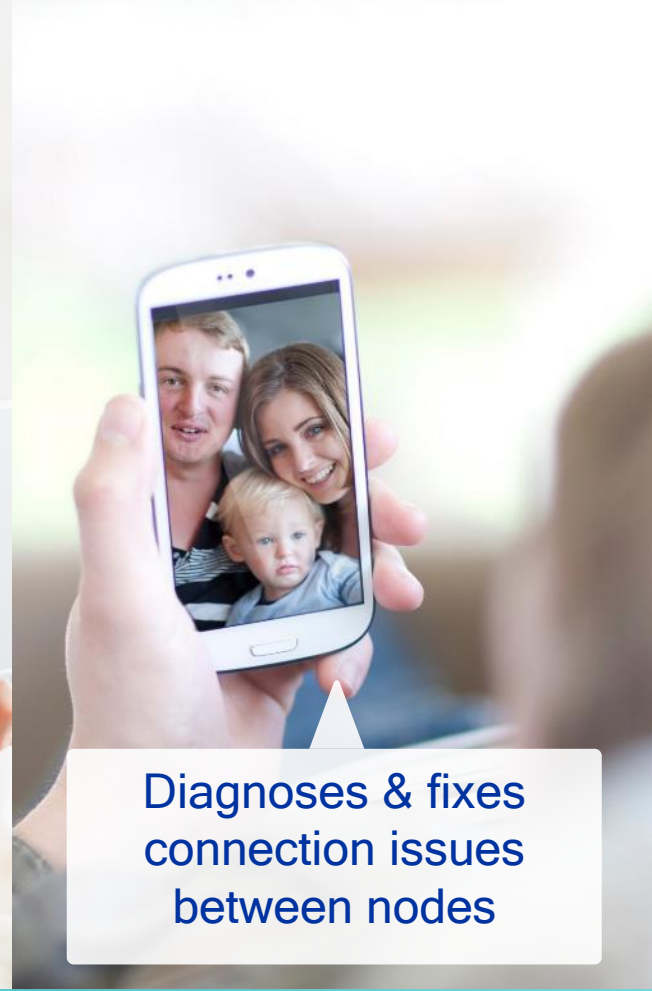
Connects devices to the closest network node



Detects usage spikes and balances traffic between bands



Identifies and quarantines untrusted connections

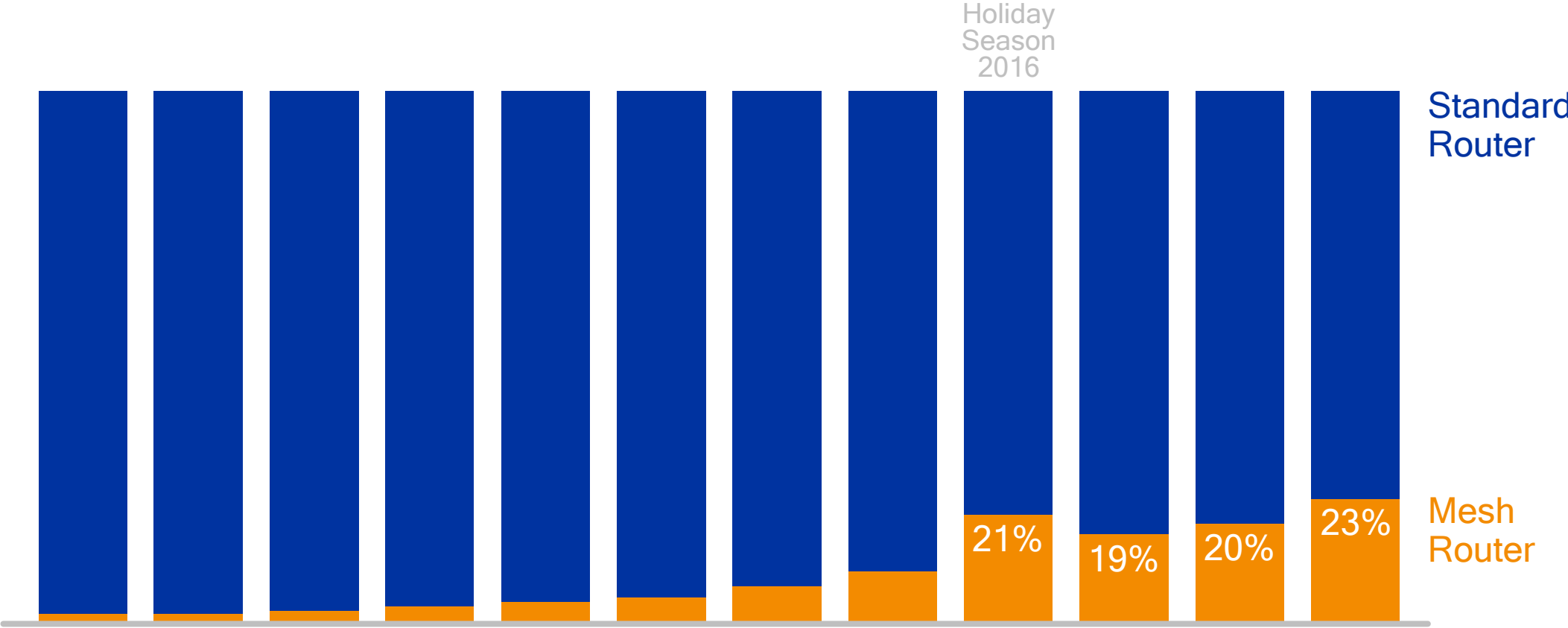


Diagnoses & fixes connection issues between nodes

Enabling a network that “just works”

# The transition to mesh is accelerating

According to The NPD Group, revenue share is up to 21% of all retail routers sold



In twelve months, mesh routers have grown to almost a quarter of the market

# Qualcomm Mesh Networking Platform

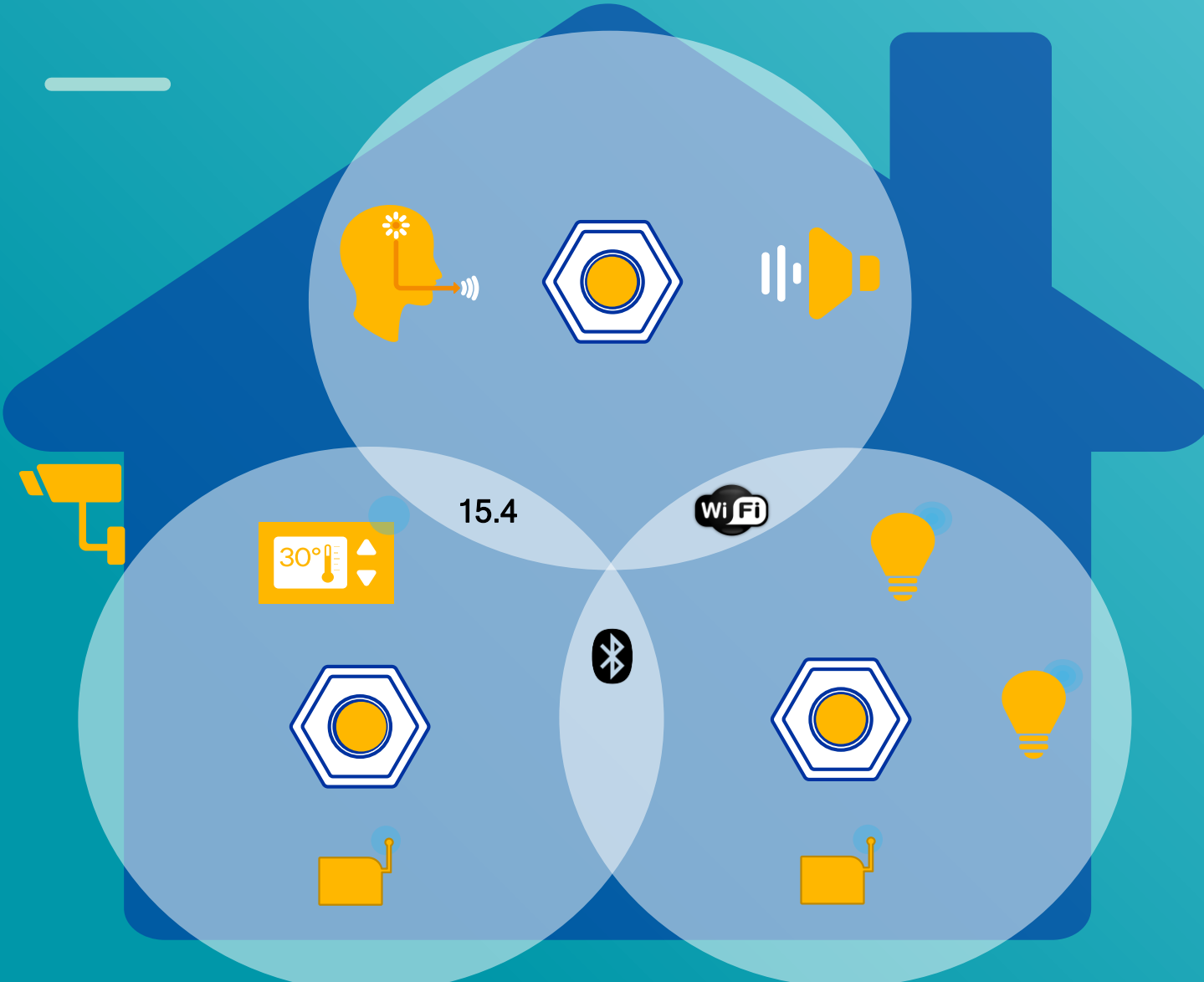
- Highly integrated SoCs (IPQ40x8 and IPQ40x9)
  - 802.11ac Wi-Fi + quad-core network processor
- Wi-Fi SON feature suite
- IoT Connectivity feature suite
- Voice assistance
- Carrier-grade features
- Multiple backhaul options
  - 11ac, 11ax, 11ad, Powerline, Ethernet



**A platform for future innovation.**



# Mesh 2.0: Adding features to enhance IoT in the home



---

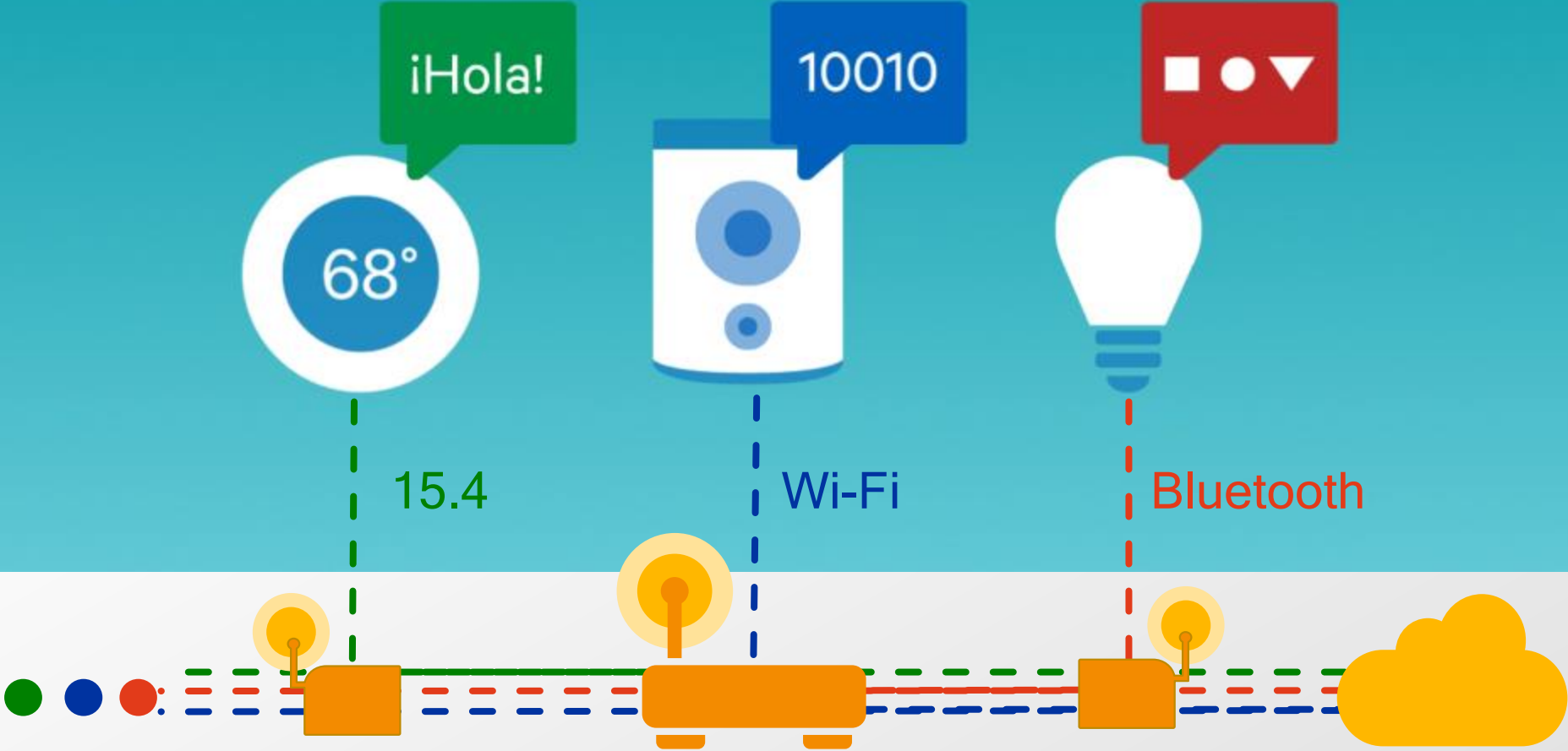
Centralizes control of data,  
media and IoT devices

Eliminates islands of  
connectivity

Voice assistance & control

---

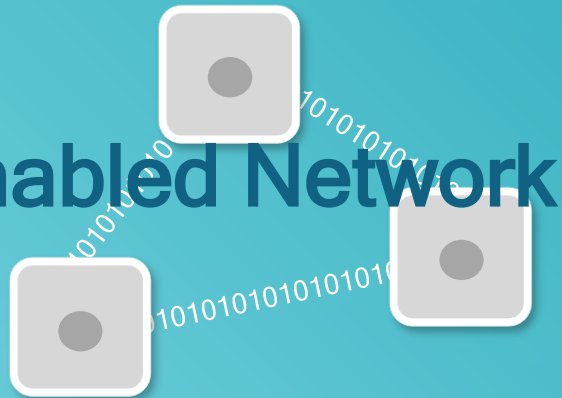
# Qualcomm IoT connectivity feature suite



# Integrated Voice Capabilities

Making the most of the home's corner-to-corner connectivity

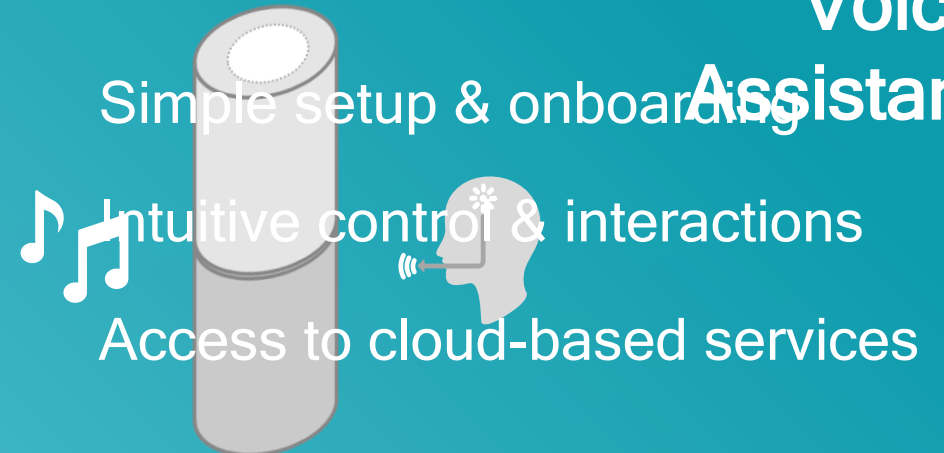
Mesh  
Network



Voice-Enabled Network



Voice  
Assistant



Simple setup & onboarding

Intuitive control & interactions

Access to cloud-based services

# What's next for mesh networks?

Convergence of even more advanced capabilities



---

More intuitive control  
(voice, proximity, etc.)

Security & authentication

Machine learning &  
contextual awareness

---



# The network that just works

---

Whole-home connectivity

Easy to set-up and expand

Connects islands and ecosystems

Intuitive control & management

---

# Thank you

---

Follow us on:   

For more information, visit us at:

[www.qualcomm.com](http://www.qualcomm.com) & [www.qualcomm.com/blog](http://www.qualcomm.com/blog)

Nothing in these materials is an offer to sell any of the components or devices referenced herein.

©2017 Qualcomm Technologies, Inc. and/or its affiliated companies. All Rights Reserved.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. Other products and brand names may be trademarks or registered trademarks of their respective owners.

References in this presentation to “Qualcomm” may mean Qualcomm Incorporated, Qualcomm Technologies, Inc., and/or other subsidiaries or business units within the Qualcomm corporate structure, as applicable. Qualcomm Incorporated includes Qualcomm’s licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm’s engineering, research and development functions, and substantially all of its product and services businesses, including its semiconductor business, QCT.

