



Market Update

2020

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A Letter From the CEO



Every year, the Bluetooth SIG member community works hard to deliver innovations that help shape new market trends. From wireless audio and wearable devices to location services and device networking solutions, Bluetooth SIG member companies continue to meet the needs of consumer, commercial, and industrial use cases.

Thanks to their ongoing efforts, *Bluetooth*® technology is securing its place in today's smart buildings and smart homes. Market leaders are making the strategic choice to integrate Bluetooth mesh networking into their commercial and home automation solutions. The Bluetooth SIG member community is also continuing to expand the way audio is experienced around the world. Recent advancements in Bluetooth audio and entertainment solutions, including the launch of LE Audio, are further testament to the ability of Bluetooth technology to significantly influence market trends.

It's an honor to be part of such an incredible community.

A handwritten signature in black ink that reads "Mark". Below the signature is a long, horizontal, slightly wavy line.

Mark Powell | CEO | *Bluetooth SIG, Inc.*

What is Bluetooth SIG, Inc.?

Formed in 1998, the Bluetooth Special Interest Group (SIG) is the not-for-profit trade association that oversees Bluetooth® technology, serving industry-leading member companies across the globe.

Based in Kirkland, Washington, USA, we work with our member companies to perfect and advance a simple, flexible, and secure wireless communication solution that helps create a connected world, free from wires.

The Bluetooth SIG manages three charter programs:



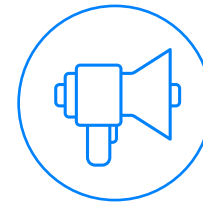
Specification

We expand the capabilities of Bluetooth® technology by facilitating the collaboration of our member companies to create new and enhanced Bluetooth specifications.



Qualification

We drive interoperability of Bluetooth® enabled devices through a world-class qualification product program that gives members access to the Bluetooth technology and trademark license agreements.



Promotion

We grow the Bluetooth® brand by increasing the awareness, understanding, and adoption of Bluetooth technology.

What is the Bluetooth® Market Update?

Supported by updated forecasts from ABI Research and insights from several other analyst firms, the Bluetooth® Market Update examines:

- The growth and health of the Bluetooth SIG member **community**
- Trends and forecasts for each of the key Bluetooth® wireless **solution** areas
- New trends, forecasts, and opportunities in Bluetooth vertical **markets**

The Bluetooth® Market Update is intended to help global Internet of Things (IoT) decision makers stay up to date on the role Bluetooth technology can play in their technical roadmaps and markets.

The trends in the Bluetooth® Market Update highlight the direction of the Bluetooth SIG member community as Bluetooth technology continues its expansion from a personal communications solution to a commercial and industrial-grade connectivity engine.



The Bluetooth SIG member community continually expands the technology to solve new connectivity challenges and address new market opportunities.



**Bluetooth® technology
is more than wireless connectivity.
It's also a community.**

Community

Membership

Growing

Collaborating

Delivering

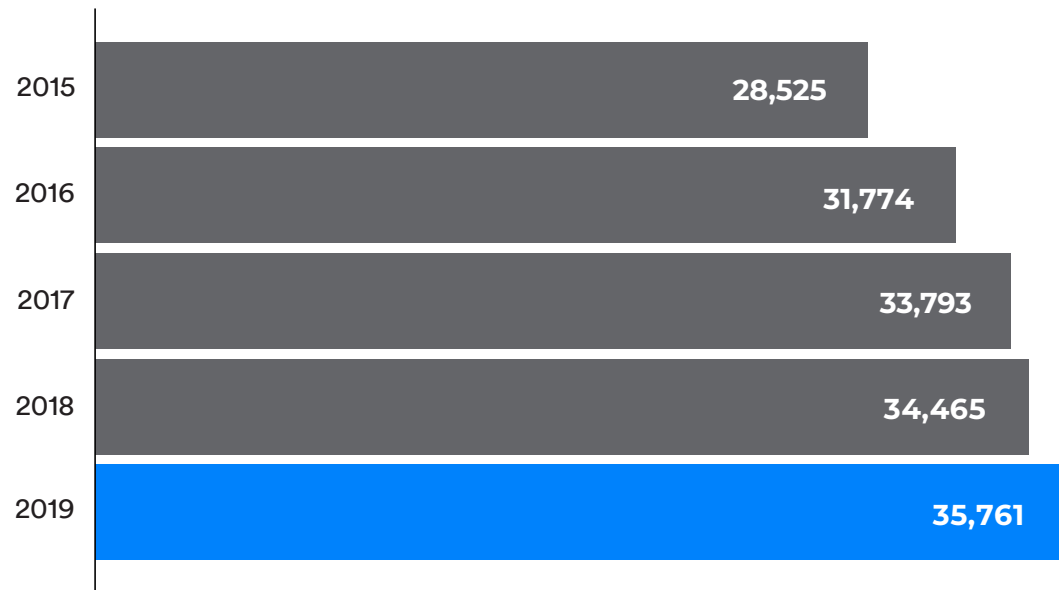
Embracing

Innovating

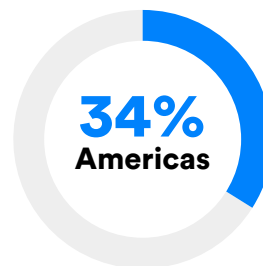
The Bluetooth SIG member community continues to experience strong growth and now has nearly 36,000 companies spread evenly across all regions of the world, highlighting the true global footprint of Bluetooth® technology.

[Learn more about membership](#)

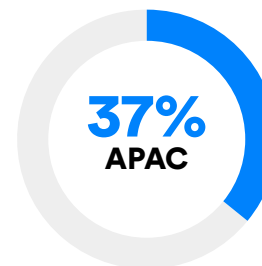
Total Bluetooth SIG Member Companies



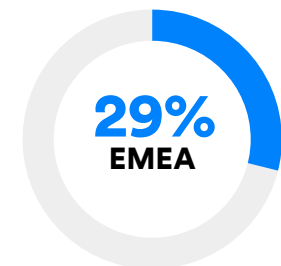
Bluetooth SIG Membership by Region in 2019



12,219 Members



13,136 Members



10,406 Members

Specifications

Growing

Collaborating

Delivering

Embracing

Innovating

The Bluetooth SIG working groups and committees are the reason Bluetooth® technology is the global wireless standard powering the IoT. The hard work and collaboration between our member companies are what drives the continuous innovation of the technology.

[Learn more about working groups](#)

Working groups are the backbone of the Bluetooth SIG, bringing specifications to life.

14

Working Groups

80

Active, In-Development Specification Projects

2,089

New Group and Committee Members in 2019

Shipments

Growing

Collaborating

Delivering

Embracing

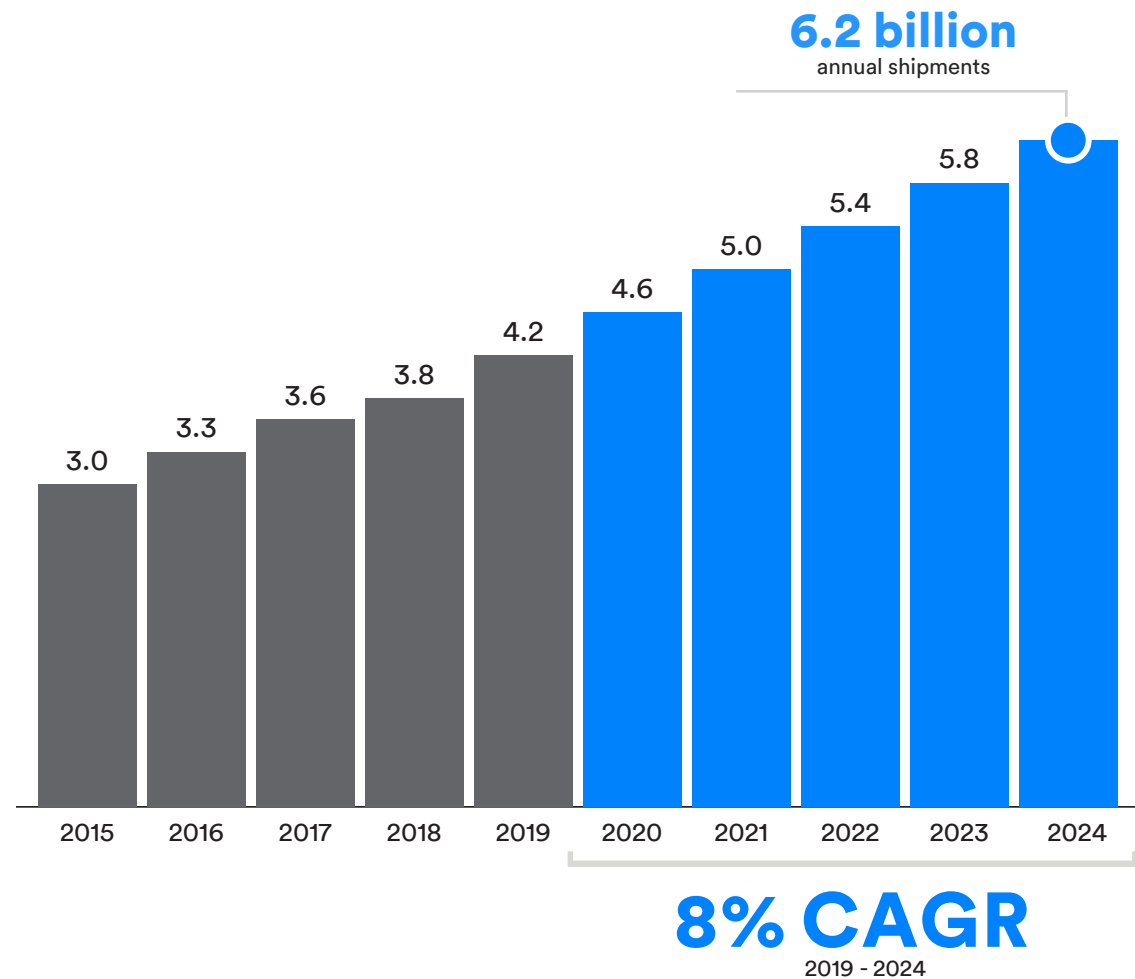
Innovating

With the support of a committed member community, Bluetooth® technology has met the growing demands for wireless innovation for more than 20 years.

Since its introduction in 1998, Bluetooth enabled device shipments continue to increase with no sign of slowing down. By 2024, annual Bluetooth enabled device shipments will exceed six billion.

Total Annual Bluetooth® Device Shipments

numbers in billions



Source: ABI Research, 2020

Shipments by Radio Version

Growing

Collaborating

Delivering

Embracing

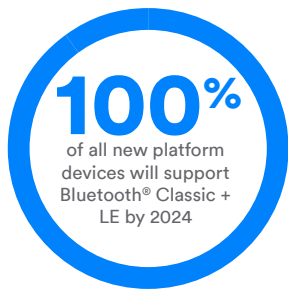
Innovating

7.5
BILLION

cumulative Bluetooth® LE single-mode devices will ship from 2020-2024

Bluetooth® LE is the new market standard

Bluetooth Low Energy (LE) technology continues to expand at a tremendous rate and remains the fastest growing Bluetooth radio with a 26% CAGR.



Dual-mode is the standard for platform devices

In order to connect to the universe of Bluetooth enabled devices, 100% of all platform devices (phones, tablets, and laptops) shipped in 2024 are forecasted to support both Bluetooth radio versions.

3x
GROWTH

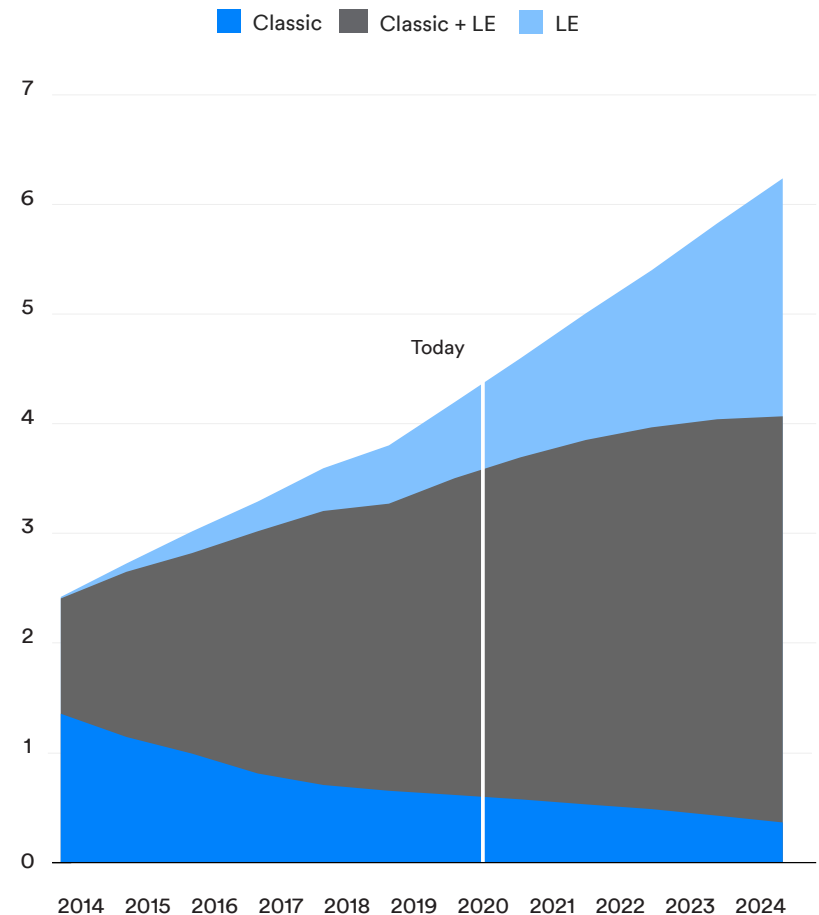
in annual shipments of Bluetooth® LE single-mode devices by 2024

35% of annual shipments by 2024 will be LE single-mode devices

Thanks to the recent release of LE Audio, forecasts indicate that Bluetooth LE single-mode device shipments are set to triple over the next five years.

Annual Bluetooth® Device Shipments by Radio Version

numbers in billions



Source: ABI Research, 2020

Embracing Mesh Networking

Growing

Collaborating

Delivering

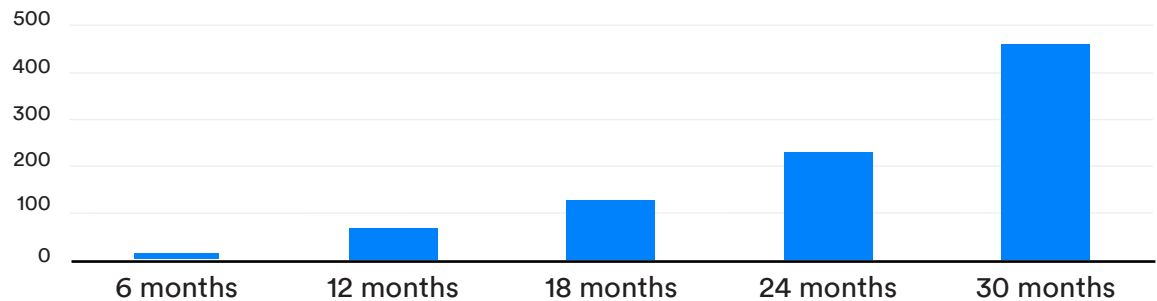
Embracing

Innovating

Since its release, Bluetooth® mesh networking has become the clear choice for large-scale device networks and is playing a pivotal role in the development of emerging markets, from smart building and smart industry to the smart home and smart city.

[Learn more about Bluetooth mesh networking](#)

Bluetooth® Mesh Qualified Products Double Every Six Months



Home Automation

Bluetooth mesh networking is playing a key role in automating the smart home of tomorrow. Embraced by major home automation platforms, such as Alibaba and Xiaomi, Bluetooth mesh networking continues to support a growing demand for device networks in the home.

Commercial Lighting

Commercial lighting control systems — supported by innovators like Osram, Murata, Zumtobel, McWong, Delta Electronics, Hytronik, Leedarson Lighting, Fulham, and more — are relying on Bluetooth mesh networking to create large-scale device networks that can act as the building's central nervous system. Used across retail, tourism, and enterprise to provide advanced lighting control, these systems also establish a platform that enables advanced building services, including wayfinding and asset tracking.

Innovating LE Audio

Growing

Collaborating

Delivering

Embracing

Innovating

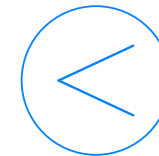
Building on a tradition of audio innovation, the Bluetooth SIG member community introduced LE Audio, the next generation of Bluetooth® audio. LE Audio will enhance the performance of Bluetooth audio, add support for hearing aids, and introduce Audio Sharing, an innovative use case for Bluetooth technology with the potential to once again change the way we experience audio and connect with the world around us.

[Learn more about LE Audio](#)



LC3

Providing higher quality at lower data rates, a new audio codec called LC3* will bring tremendous flexibility to developers, allowing them to make better design tradeoffs between key product attributes.



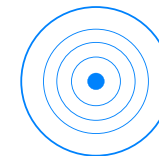
Multi Stream

LE Audio will enable the transmission of multiple, independent, synchronized audio streams, providing a standardized approach for developers to build high-quality, truly wireless earbuds.



Hearing Aids


Building on its low power, high quality, and multi-stream capabilities, LE Audio will facilitate the development of Bluetooth hearing aids to support the growing number of people with hearing loss.



Broadcast

Broadcast Audio enables a source device to broadcast an audio stream to an unlimited number of audio sink devices, opening new opportunities for innovation, including the enablement of a new Bluetooth technology use case, Audio Sharing.

*LC3 - Low Complexity Communication Codec



**Bluetooth® technology
proves the power of connection.
It expands to meet market needs.**

Solutions

Solutions to Meet Market Needs

Audio Streaming

Data Transfer

Location Services

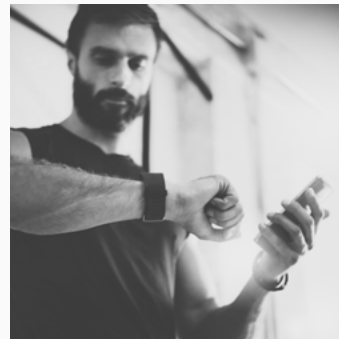
Device Networks

Bluetooth® technology provides full stack, fit-for-purpose solutions to meet the ever-expanding needs of wireless connectivity. After first addressing audio streaming, Bluetooth technology expanded into low-power data transfer. Now, Bluetooth technology is meeting the needs of location service and large-scale device network solutions.



Audio Streaming

Stripping away the hassle of wires, Bluetooth technology revolutionized audio and has forever changed the way we consume media. With the introduction of LE Audio, Bluetooth technology is poised once again to transform the way we experience audio and connect with the world around us.



Data Transfer

From household appliances and fitness trackers to health sensors and medical innovations, Bluetooth technology connects billions of everyday devices and enables the invention of countless more.



Location Services

Bluetooth technology is the developer tool of choice for creating proximity solutions used for point of interest information and item finding as well as positioning systems for asset tracking and wayfinding.



Device Networks

Bluetooth mesh networking is ideally suited for creating control, monitoring, and automation systems where tens, hundreds, or thousands of devices need to reliably and securely communicate with one another.

Audio Streaming

Audio Streaming

Data Transfer

Location Services

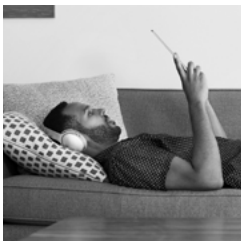
Device Networks



Calling — Thanks to Bluetooth technology, everything from earbuds to cars to enterprise headsets enable safer, more-convenient conversations without the distraction and limitations of wires.



Listening — Whether using a headset on the go, a high-fidelity speaker at home, or a portable speaker at the beach, Bluetooth technology has forever changed the role music plays in our lives.



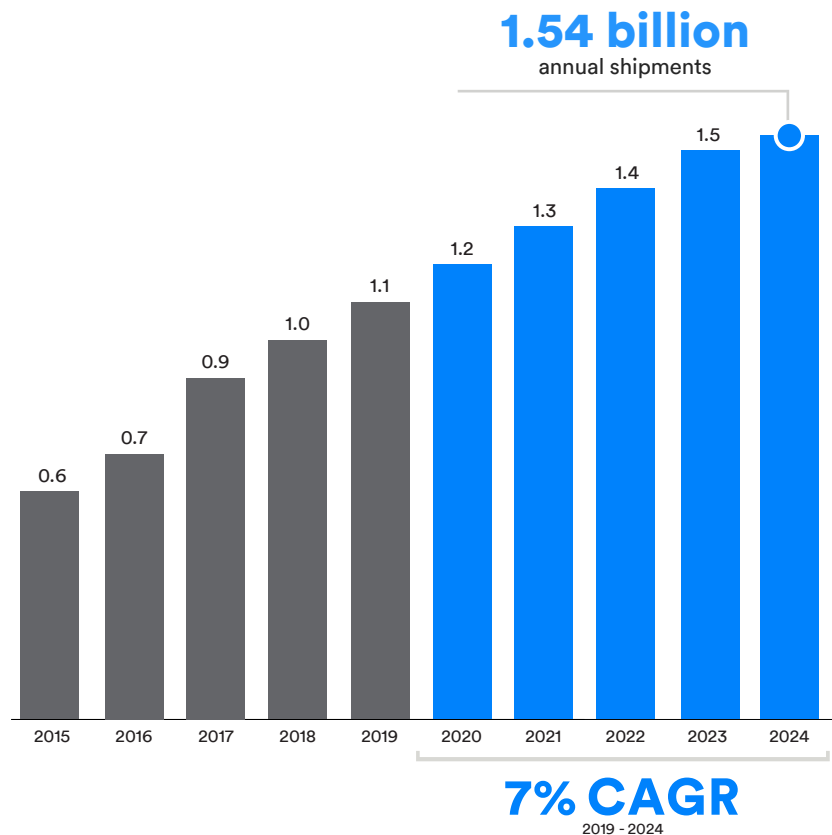
Watching — Bluetooth headphones, earbuds, speakers, soundbars, and more provide the perfect audio complement to our on-demand viewing experience, whether on the go or in our homes.



Controlling — Alexa, Siri, Cortana, and DuerOS. The assistant names may change, but the user interface (UI) stays the same. Voice UIs have been added to smart speakers, automobiles, home appliances, and more.

Annual Bluetooth® Audio Streaming Device Shipments

numbers in billions



Source: ABI Research, 2020

Data Transfer

Audio Streaming

Data Transfer

Location Services

Device Networks



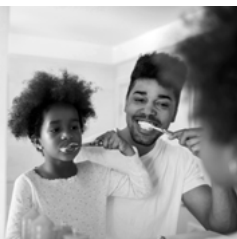
Sports & Fitness — Bluetooth technology powers wearable devices like fitness trackers and smartwatches to monitor steps, exercise, activity, and sleep.



Health & Wellness — From blood pressure monitors to continuous glucose monitoring, Bluetooth technology provides easier ways to track health metrics and improve quality of care.



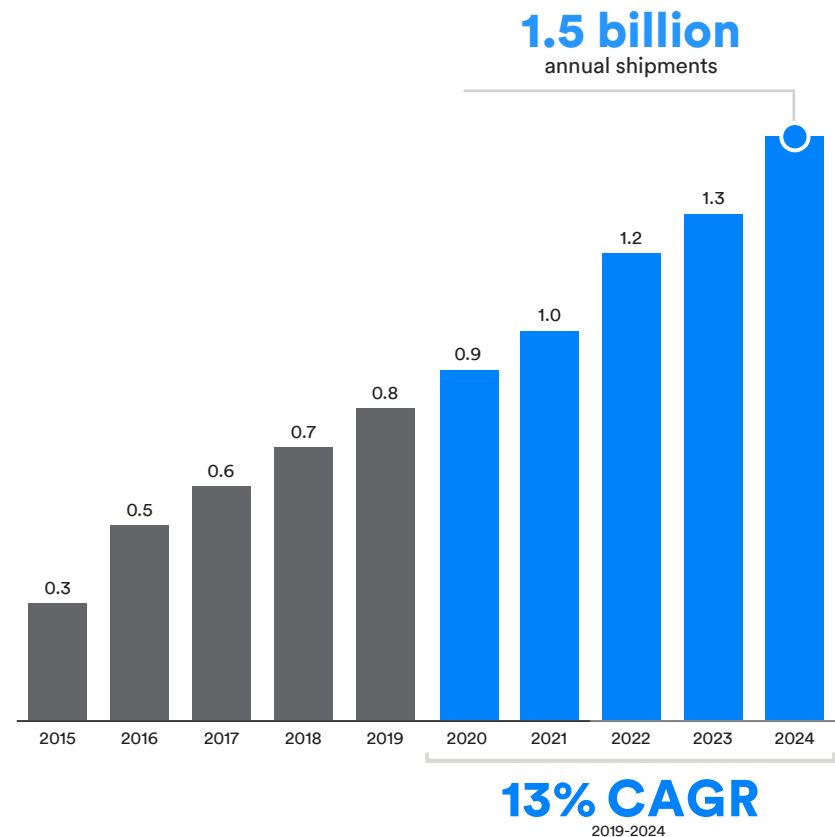
Input & Control — A driving force behind Bluetooth technology is freedom from wires. Whether it is a keyboard, trackpad, or mouse, computers no longer need wires to stay connected.



Internet of Everything — Whether it is a tool, toy, or toothbrush, the ability to collect data and turn it into actionable information can provide benefit to any device.

Bluetooth® Data Transfer Device Shipments

numbers in billions



Source: ABI Research, 2020

Location Services

Audio Streaming

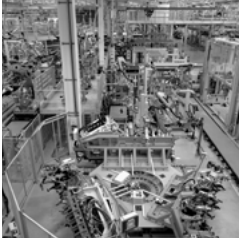
Data Transfer

Location Services

Device Networks



Item Finding — A growing number of consumers are attaching Bluetooth tags to keys, wallets, purses, and other personal property to help them locate lost items.



Asset Tracking — Bluetooth technology is powering rapid growth in real-time location system (RTLS) solutions used for tracking assets and inventory to increase productivity and reduce costs.



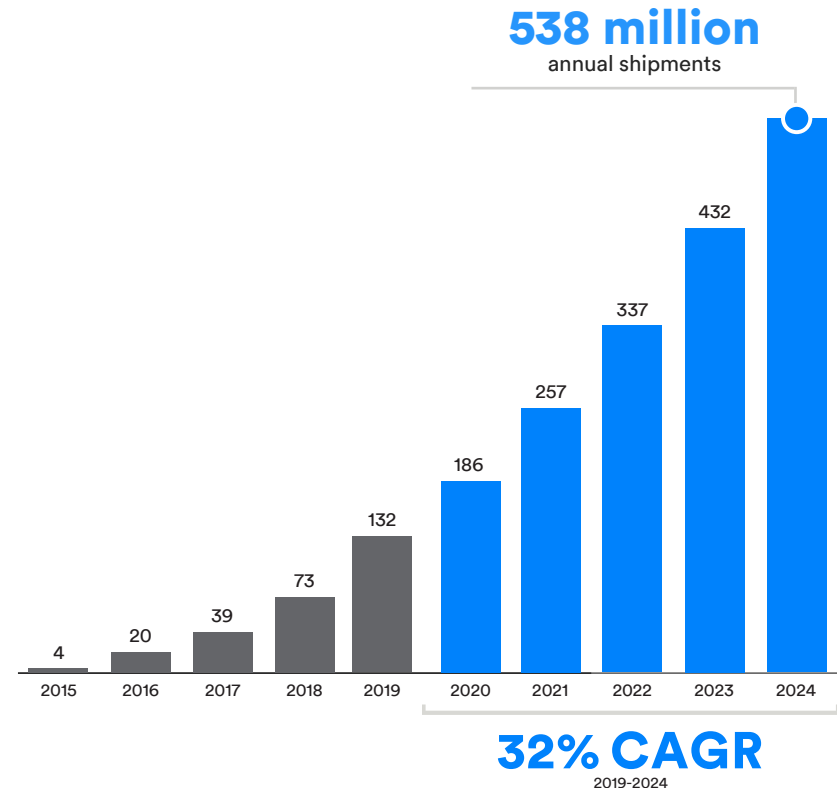
Wayfinding — Bluetooth indoor positioning systems (IPS) have quickly become the solution for indoor GPS, helping visitors navigate their way through complex facilities.



Access Control — Whether used to unlock cars or enhance workplace safety by controlling access to hazardous and critical industrial spaces, Bluetooth technology is replacing key fobs and key cards.

Bluetooth® Location Services Device Shipments

numbers in millions



Source: ABI Research, 2020

Device Networks

Audio Streaming

Data Transfer

Location Services

Device Networks



Automation Systems — Bluetooth technology enables the automation of a building’s essential systems, including HVAC (heating, ventilation, and air conditioning), lighting, and security to harness energy savings, lower operating costs, and improve the life span of a building’s core systems.



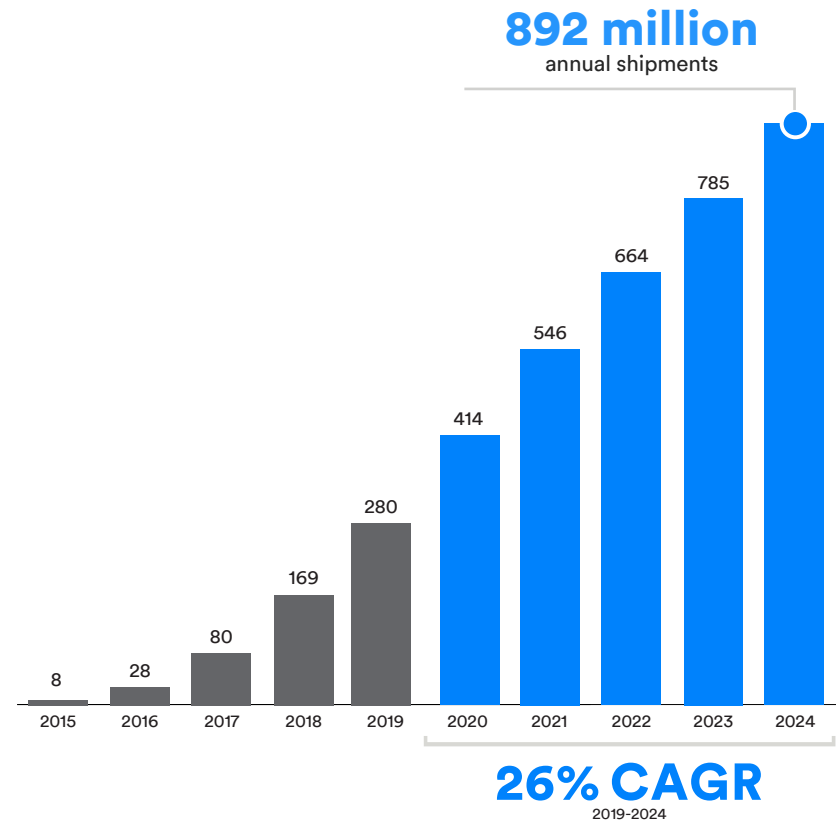
Control Systems — Bluetooth mesh networking is quickly being adopted as the wireless communications platform of choice in a number of control systems, including advanced lighting solutions for smart building and smart industry markets.



Monitoring Systems — Bluetooth wireless sensor networks (WSN) monitor environmental factors to improve employee productivity, lower operating costs, or reduce unplanned downtime of production equipment.

Bluetooth® Device Networks Device Shipments

numbers in millions



Source: ABI Research, 2020

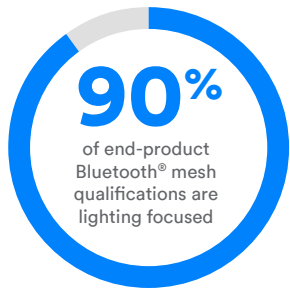
Shipments by Solution Area

Audio Streaming

Data Transfer

Location Services

Device Networks



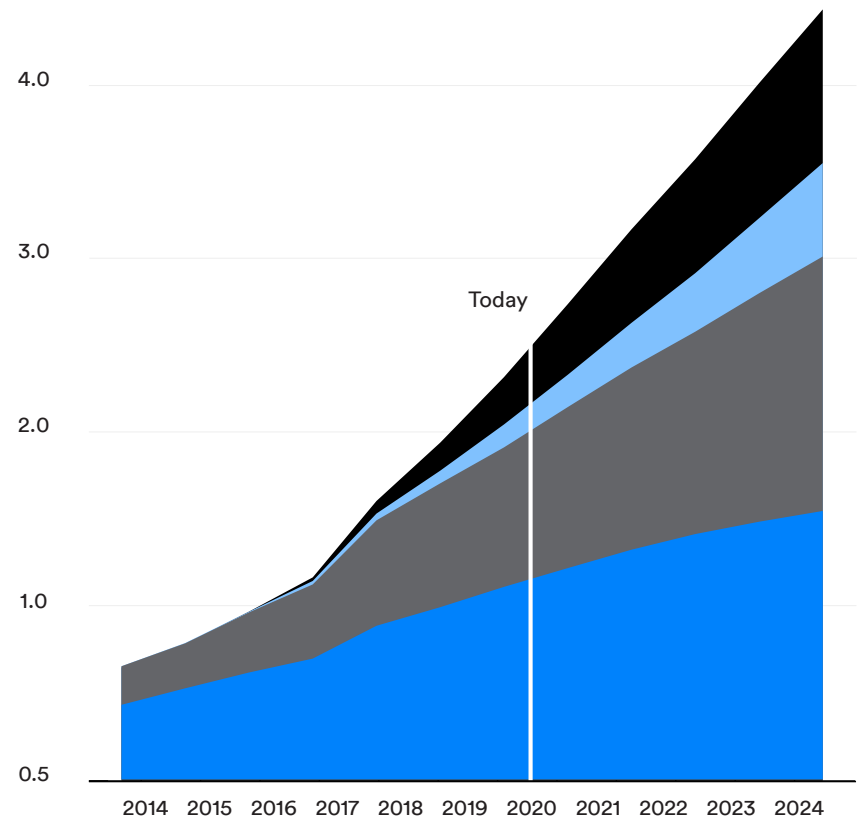
Bluetooth® mesh networking powers smart building development

Bluetooth mesh is powering everything from connected lighting to complex building automation systems, and product qualifications have doubled every six months for the last two years with no signs of slowing down.

Annual Bluetooth® Device Shipments by Solution Area*

numbers in billions

■ Audio Streaming ■ Data Transfer ■ Location Services ■ Device Networks



4x
GROWTH

in annual shipments of Bluetooth® location services devices by 2024

Location services is still the fastest growing solution area

Continued demand for location services is powering a surge in wayfinding, asset tracking, item finding, and access control solutions that incorporate Bluetooth technology.


1.5
BILLION

annual shipments of Bluetooth® audio streaming devices by 2024

Audio streaming will continue to drive market growth

With the recent launch of LE Audio, and the introduction of Bluetooth® Audio Sharing, audio streaming will continue to lead the growth in Bluetooth enabled devices over the next five years.

*Phone, tablet, and PC devices not included. Source: ABI Research, 2020



**Connection drives innovation.
Innovation creates markets.**

Markets

Phone, Tablet & PC

MARKET FORECAST

Phone

Audio

Automotive

Device

Building

Industry

Home

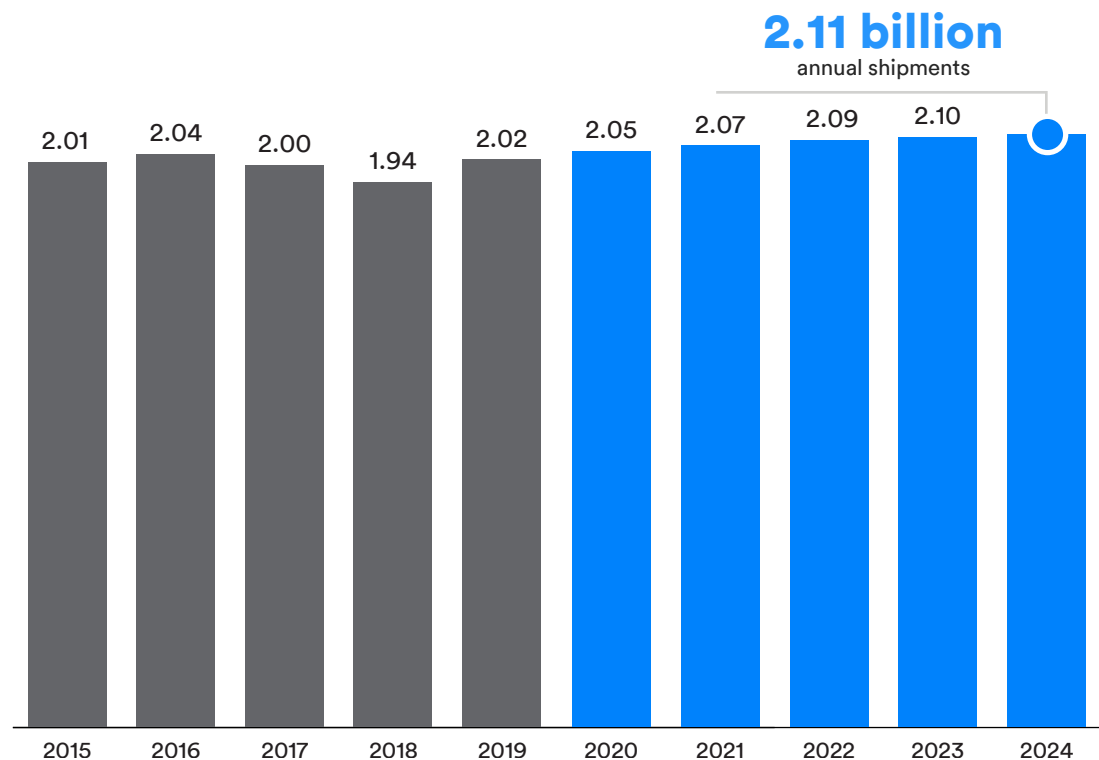
City

Bluetooth® technology is the standard for personal wireless connections. Included in 100% of new smartphones, tablets, and PCs, Bluetooth technology continues to keep pace with the market for new use cases and embrace the latest market trends — from navigation to automation to control.

[Learn more about the Phone, Tablet & PC market](#)

Bluetooth® Phone, Tablet & PC Device Shipments

numbers in billions



Source: ABI Research, 2020

Phone, Tablet & PC

MARKET INSIGHT

Phone

Audio

Automotive

Device

Building

Industry

Home

City

Platform ubiquity maximizes developer opportunities

100%
OF ALL NEW

platform devices will support Bluetooth® Classic + LE by 2024

With Bluetooth technology included in 100% of new smartphones, tablets, and PCs, developers can be assured the technology will be available for the applications and solutions they create.

Bluetooth technology in smartphones drives location services

1.8
BILLION

Bluetooth® enabled handsets will be actively engaged in location services by 2024

From indoor navigation and item finding to point of interest information solutions, more than 1.8 billion actively engaged handsets by 2024 will continue to make Bluetooth location services an integral part of the smartphone experience.

Accessories are standardizing on Bluetooth connectivity

70%
OF ACCESSORIES

will include Bluetooth® technology by 2024

Whether it's keyboards, mice, speakers, headphones, or other connected peripherals, developers rely on Bluetooth technology to eliminate wires and create a reliable, clutter-free user experience.

Smartphones for provisioning help drive mesh growth

3.2x
GROWTH

in annual Bluetooth® device networks device shipments by 2024

Commercial and industrial environments are turning to Bluetooth technology to support large-scale device network provisioning and control, adopting smartphones and tablets as mobile displays for managing and monitoring critical equipment in day-to-day operations.

Audio & Entertainment

MARKET FORECAST

Phone Audio Automotive Device Building Industry Home City

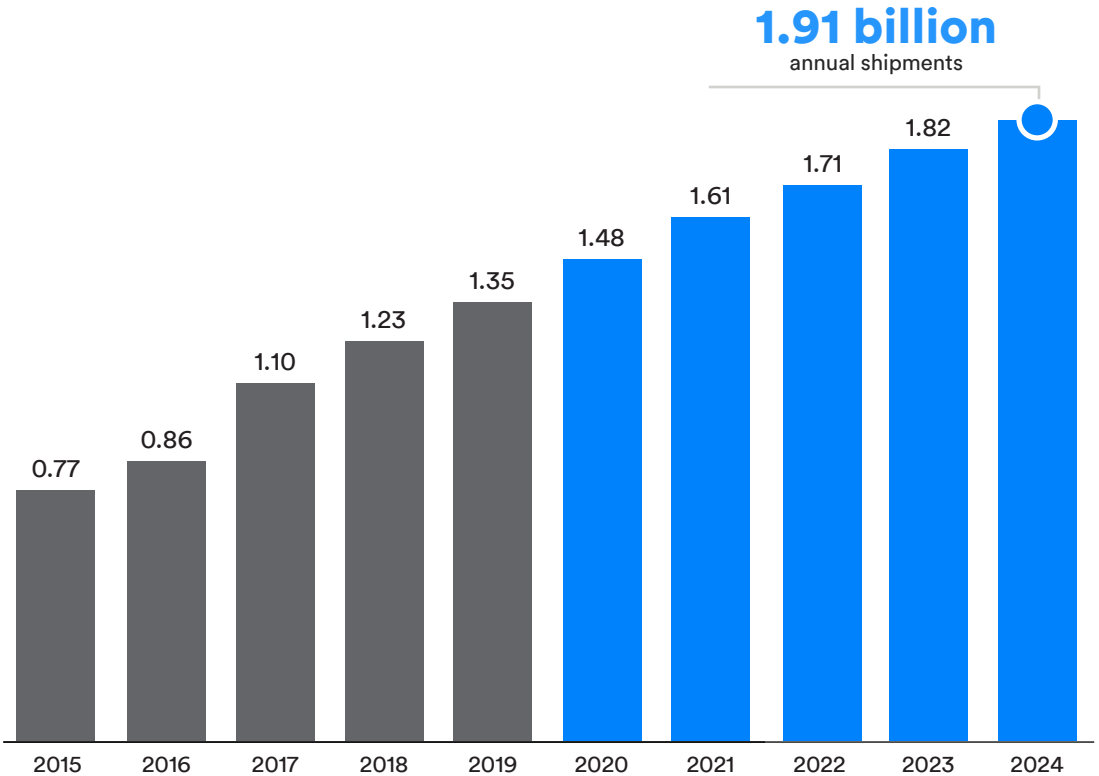
Bluetooth® technology enables consumers to experience music and entertainment free from wires. The introduction of LE Audio in 2020 will help accelerate market growth with nearly 2 billion audio and entertainment devices forecasted to be shipped annually by 2024.

In addition to enhancing performance and adding support for hearing aids, LE Audio will introduce Audio Sharing, an innovative use case for Bluetooth technology with the potential to once again change the way we experience audio and connect with the world around us.

[Learn more about the Audio & Entertainment market](#)

Bluetooth® Audio & Entertainment Device Shipments

numbers in billions



Source: ABI Research, 2020

Audio & Entertainment

MARKET INSIGHT

Phone

Audio

Automotive

Device

Building

Industry

Home

City

**Bluetooth audio
annual shipments reach
one billion**

**one
BILLION**

Bluetooth® audio devices
will ship in 2020

Like a ball rolling down a hill, the market conversion to wireless Bluetooth audio continues to pick up speed. From more design options to the introduction of LE Audio, the adoption of Bluetooth audio continues to grow.

**Earbuds are becoming
the form factor of choice
for consumers**

**38%
OF WIRELESS**

headphones shipped annually
will be truly wireless earbuds
by 2024

With the introduction of new product lines and a greater choice in features, earbuds and Bluetooth technology have become the go-to combination for consumers, providing a truly wireless audio experience.

**Market transition to
wireless speakers is
nearly complete**

**9<sup>OUT
OF</sup>10
SPEAKERS**

include Bluetooth® technology

Rapid growth in portable wireless speakers and soundbars demonstrate consumer preference and confidence in Bluetooth wireless audio devices. Nearly 97% of all speakers are forecasted to include Bluetooth technology by 2024.

**Audio & Entertainment
is embracing Bluetooth
Low Energy technology**

**1/2
OF DEVICES**

shipped annually for Audio &
Entertainment will include
Bluetooth® LE technology by 2024

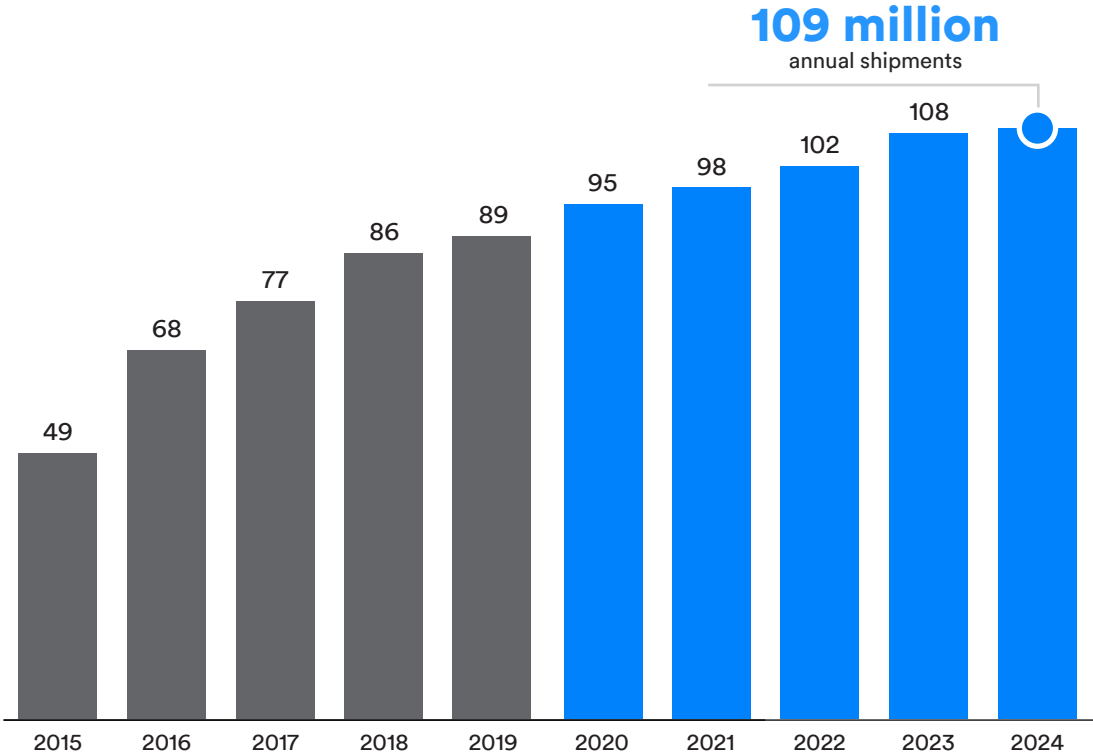
The advantages and flexibility of the Bluetooth Low Energy (LE) radio support multiple uses like device discovery, data transfer, and now LE Audio. It is anticipated that half of all audio and entertainment device shipments will include Bluetooth LE technology by 2024.

Bluetooth® technology creates connections between the car and driver that support new levels of safety, security, and access while enhancing the in-car experience. Thanks to lower power consumption, enhanced performance, and improved reliability, Bluetooth technology is the automotive standard for both in and out of the car – including keyless entry systems and in-car infotainment.

[Learn more about the Automotive market](#)

Bluetooth® Automotive Device Shipments

numbers in millions



Source: ABI Research, 2020

Bluetooth technology is factory installed in most new vehicles

87%

OF NEW CARS

come standard with Bluetooth® technology

Bluetooth technology continues to gain traction with factory and after-market solutions and is now included in nearly all new cars, trucks, and SUVs. By 2024, two thirds of all cars on the road will include Bluetooth technology.

Bluetooth technology is becoming the standard for automotive keyless entry

13

MILLION

annual shipments of Bluetooth® enabled key fobs and accessories by 2024

Thanks to Bluetooth technology, using the smartphone as a key fob is becoming an increasingly popular trend. Annual shipments of Bluetooth key fobs and accessories will increase 60% over the next five years.

In-car sensor networks drive new automotive use cases

2/3

OF ALL CARS

on the road by 2024 will use Bluetooth® technology

Use cases — such as infotainment, passive keyless entry, tire pressure monitoring, and condition alerts — are creating a demand for more wireless sensors, leading to an anticipated four to six Bluetooth enabled sensors in every future car.



Connected Device

MARKET FORECAST

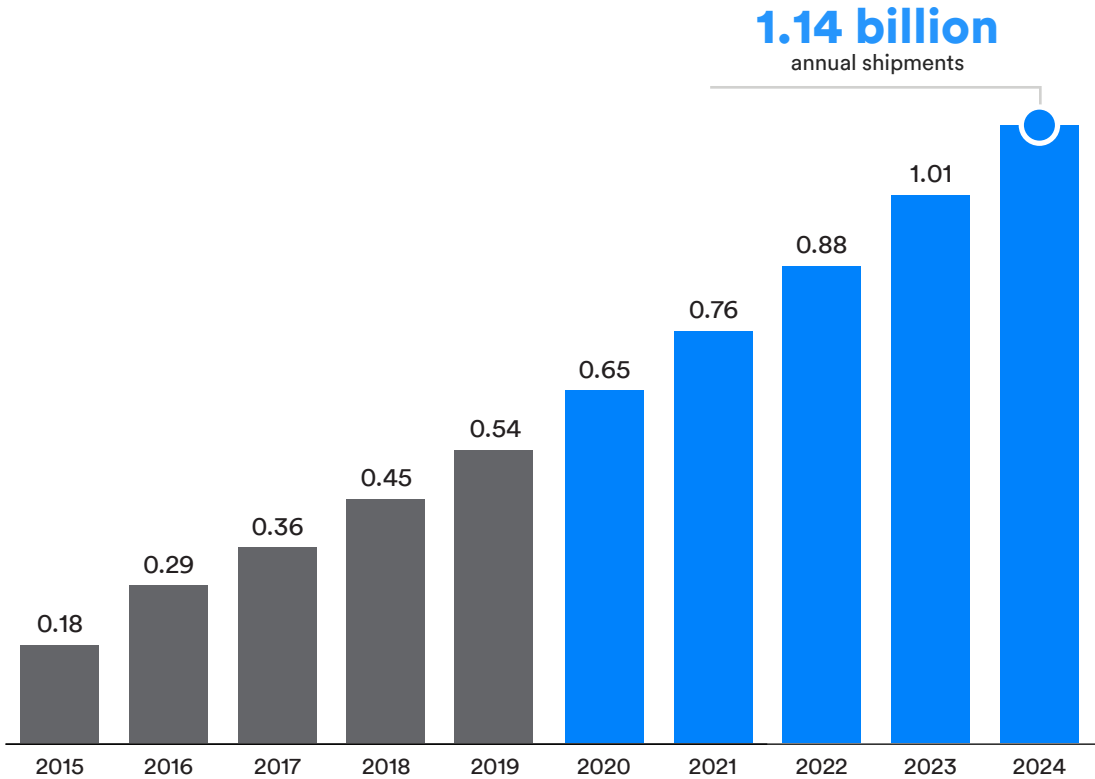
- Phone
- Audio
- Automotive
- Device**
- Building
- Industry
- Home
- City

From tools to toys to toothbrushes, Bluetooth® technology connects billions of devices every day – turning data into information and enabling the modern-day IoT so everything can be a connected device. The demand to connect every device continues to grow with no signs of slowing down.

[Learn more about the Connected Device market](#)

Bluetooth® Connected Device Device Shipments

numbers in billions



Source: ABI Research, 2020



Connected Device

MARKET INSIGHT

Phone Audio Automotive **Device** Building Industry Home City

2x growth in annual shipments of smart watches by 2024

1/3

OF DEVICES

in the 2020 Bluetooth® Connected Device market are wearables

As more and more devices become connected devices, advances in Bluetooth technology will continue to drive growth in the wearables segment. In the next five years, annual shipments of smartwatches will grow to 119 million.

Tags and trackers gain sizeable market share

130

MILLION

annual shipments of Bluetooth® enabled personal tags and inventory trackers by 2024

As location services continues to make a bigger impact on everyday life, the use of tags for item finding, personnel, and pet tracking is increasing in popularity. Tags used for positioning and location services will see a 3.4x growth in annual shipments by 2024.

Any device can be a connected device with Bluetooth technology

83

MILLION

Bluetooth® connected endpoints that fall outside traditional device category definitions will ship annually in 2024

The popularity of Bluetooth Low Energy (LE) technology for IoT applications and services is unquestioned. While well-defined connected device categories, such as wearables, tags, and trackers, continue to expand, more than 83 million connected endpoints will fall outside traditional device category definitions by 2024, up from 27 million in 2019.

Smart Building

MARKET FORECAST

Phone

Audio

Automotive

Device

Building

Industry

Home

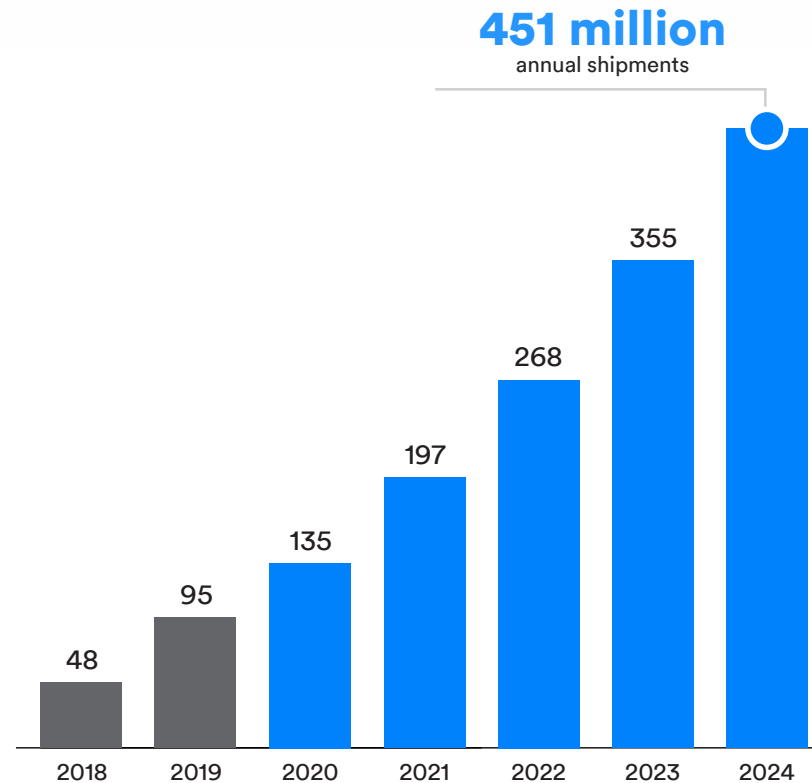
City

The growing demand for large-scale, connected lighting networks and precise, indoor location services has positioned Bluetooth® wireless connectivity as a mainstay smart building technology. With the number of Bluetooth mesh product qualifications doubling every six months, more and more Bluetooth enabled products are addressing the diverse use cases of the smart building market.

[Learn more about the Smart Building market](#)

Bluetooth® Smart Building Device Shipments

numbers in millions



Source: ABI Research, 2020

Smart Building

MARKET INSIGHT

Phone

Audio

Automotive

Device

Building

Industry

Home

City

Location services dominates smart building forecasts

4.6x

GROWTH

in Bluetooth® smart building location services devices by 2024

Bluetooth technology is becoming the default solution for enabling in-building wayfinding, asset management, and space utilization. Powering new location services in a variety of smart buildings, Bluetooth technology helps create operational efficiencies and improve the occupant experience.

Bluetooth mesh networking is powering connected lighting

90%

OF END PRODUCT

qualifications for Bluetooth® mesh networking are lighting focused

It is forecasted that the growing demand for large-scale, wireless lighting solutions will result in 1.8 billion connected lighting devices by 2028. And with Bluetooth mesh product qualifications doubling every six months, the connected lighting market shows no signs of slowing down.

Manufacturing leads demand for asset tracking tags

217

MILLION

annual shipments of Bluetooth® asset tags used in manufacturing by 2024

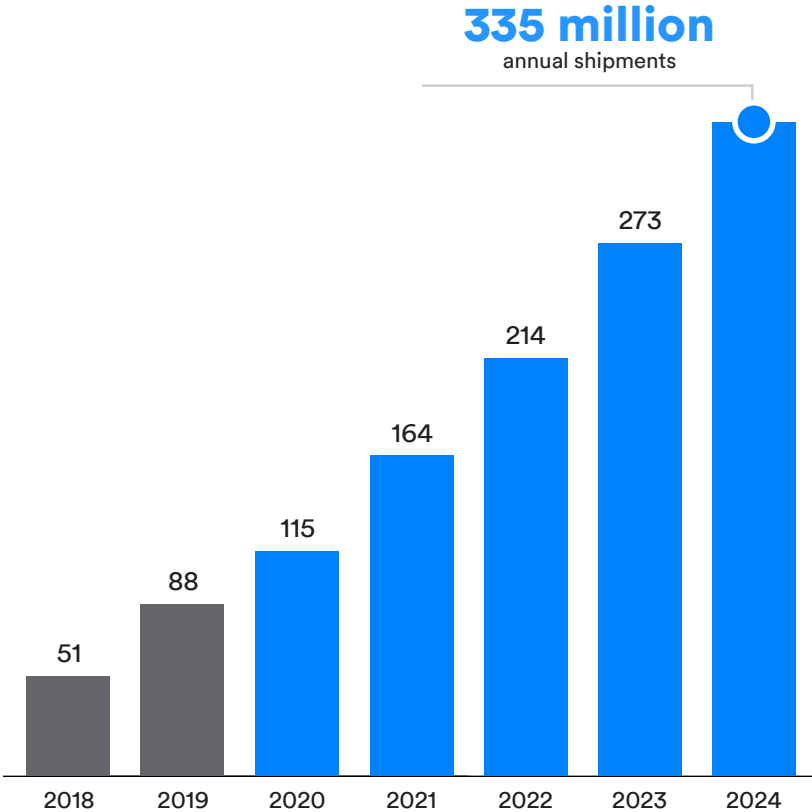
Manufacturing plants use Bluetooth technology to increase the health and safety of employees and equipment. With 66 million Bluetooth asset tracking tags shipping in 2020, facilities are geofencing harsh environments and critical assets to help ensure equipment and personnel are out of harm's way during day-to-day operation.

An integral part of the industrial IoT revolution, Bluetooth® technology helps manufacturers achieve new levels of productivity and safety. The improved location accuracy and robustness of the technology supports commercial and industrial solutions that strive to increase workplace safety and security in environments like chemical plants, help drive down implementation and support costs, and enhance operational efficiency.

[Learn more about the Smart Industry market](#)

Bluetooth® Smart Industry Device Shipments

numbers in millions



Source: ABI Research, 2020

Smart Industry

MARKET INSIGHT

Phone

Audio

Automotive

Device

Building

Industry

Home

City

Condition monitoring drives demand for sensor networks

4x
RANGE

improvement helps drive reliable connections in harsh environments

The latest Bluetooth innovations in range, speed, and data advertising can provide data for more informed decision making and support predictive maintenance across a variety of complex industrial and commercial environments.

Asset tracking gains significant traction

4.2x
GROWTH

in annual shipment of Bluetooth® asset tracking tags by 2024

Growing at a CAGR of 34%, Bluetooth asset tracking tags help improve the operational efficiency of smart industry use cases through real-time location system (RTLS) solutions by tracking and managing critical assets in commercial and industrial environments.

Bluetooth technology plays a key role in workplace safety and security

60%
SURVEYED

are currently testing or deploying workplace management solutions

The Occupational Safety and Health Administration's (OSHA) goal is to increase worker safety by focusing attention and resources on the most prevalent types of workplace injuries and illnesses and the most hazardous industries and workplaces. Whether it is via access control, geofencing, or personnel tracking, Bluetooth technology helps ensure the safety and security of facility occupants, monitoring staff positions and keeping employees away from hazardous areas.

*Source: 2019 Bluetooth smart industry perception survey

Smart Home

MARKET FORECAST

Phone

Audio

Automotive

Device

Building

Industry

Home

City

Whether connecting TVs to soundbars or PCs to keyboards, Bluetooth® technology has been at the heart of the connected home for years.

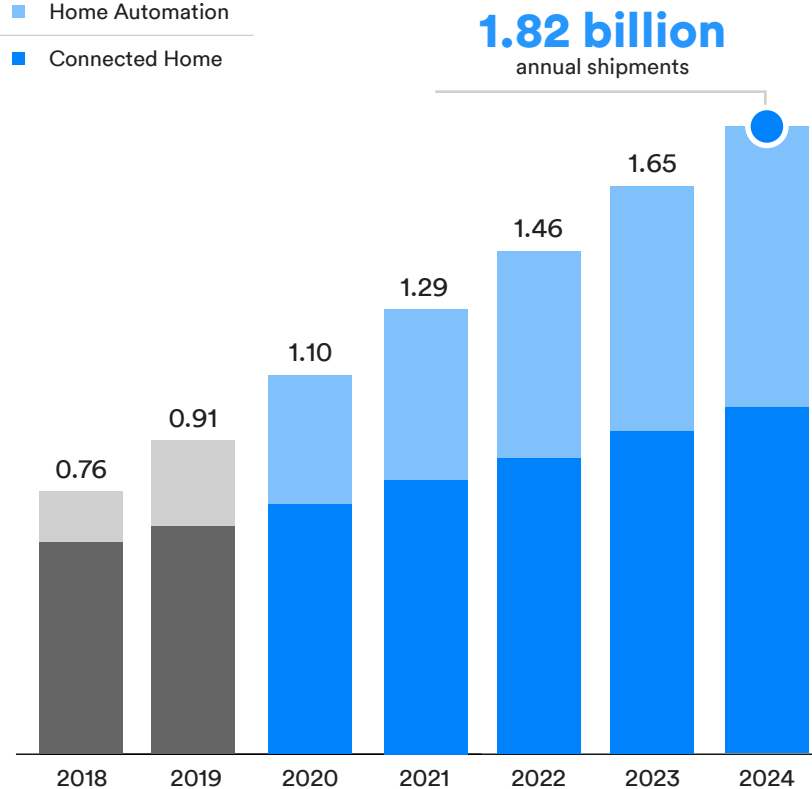
The dependability, security, and interoperability of Bluetooth solutions are helping the market realize the full potential of home automation. Thanks to rapid regional adoption of voice-control platforms, home automation through voice-controlled services is driving the future of smart home market growth.

[Learn more about the Smart Home market](#)

Bluetooth® Smart Home Device Shipments

numbers in billions

- Home Automation
- Connected Home



Source: ABI Research, 2020

Smart Home

MARKET INSIGHT

Phone

Audio

Automotive

Device

Building

Industry

Home

City

Smart home forecasts set to take a giant leap forward

2x

GROWTH

in annual shipments of Bluetooth® smart home devices by 2024

Five-year forecasts for smart home automation and control take a giant leap forward. Accounting for 45% of device shipments, a substantial increase in lighting control and home automation solutions will drive significant growth over the five-year forecast period.

Voice control front-end devices become mainstream

77%

INCREASE

in Bluetooth® voice control front-end devices shipped annually by 2024

Reaching 250 million annual shipments in 2024, anticipated growth in voice control front-end devices is playing a central role in advancing the smart home market. With more control and automation, and with Bluetooth technology being used in 100% of those devices, an advanced smart home environment is becoming a reality.

Connected home continues to lead the smart home forecast

one

BILLION

annual shipments of Bluetooth® connected home devices by 2024

While home automation and control will see significant growth over the next five years, connected home devices like OEM remote controls, speakers, TVs, and other home audio and entertainment devices will continue to drive the majority of smart home device shipments.

The growing presence of Bluetooth technology in voice control front-end devices from the likes of Amazon, Alibaba, Google, Baidu, and Xiaomi makes up a significant portion of this growth, alongside increased traction within smart lighting, smart appliances, door locks, sensors, and many other device types.

- Andrew Zignani, ABI Research

Phone

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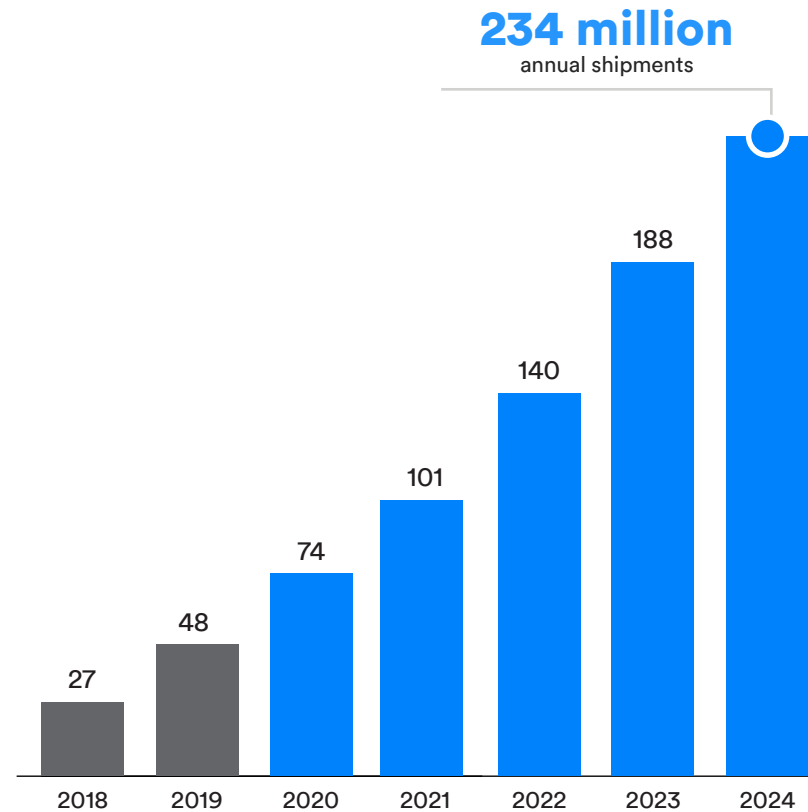
City

Bluetooth® technology is connecting tomorrow's smart cities to enhance the visitor experience, improve the quality of life for citizens, and create a more business-friendly environment.

[Learn more about the Smart City market](#)

Bluetooth® Smart City Device Shipments

numbers in millions



Source: ABI Research, 2020

Bluetooth technology will connect tomorrow's smart cities

5x

GROWTH

in annual shipments of Bluetooth® smart city devices by 2024

Whether it is urban modeling, circular cities, Micromobility, or smart spaces, Bluetooth location services and large-scale device networks are well positioned to support a wide range of smart city use cases.

Location services deployments lead the forecast

\$10.2

BILLION

market for global beacon technology by 2024

Bluetooth location services in airports, stadiums, hospitals, retail malls, tourism centers, and museums transform how visitors interact with a smart city. At the same time, asset management solutions increase utilization of smart city resources to help lower operational costs.

Bluetooth geofencing improves Micromobility deployments

45

MILLION

Micromobility vehicles in service by 2024

Micromobility, including bikes and scooters, provides on-demand, last-mile transport solutions in urban and semi-urban areas. Using beacons or ground-based sensors, cities can geofence specific return areas that can be deployed anywhere, eliminating the need for fixed docking stations.

Citizens across the globe are now massively adopting dockless electric bike and scooter sharing, and, to a lesser extent, electric motorbike sharing, offering a much higher level of convenience due to their ubiquitous availability and powered operation.



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