ITU TECH TALKS Series

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Agenda

- Intel's 2030 Strategy and Goals
- Intel & ITU-D
- Broadband Connectivity and Intel (Importance of 5G & Wi-Fi)

Intel's 2030 Strategy and Goals

- **Intel's purpose is to create world-changing technology that enriches the lives of every person on earth.**
- **Accelerating Progress Against the World's Critical Challenges:** Our world is facing challenges unlike any we have seen before. The urgent need for action on issues like climate change, the deep digital divide, lack of inclusion, and global pandemics calls for a new era of shared responsibility.
- **Revolutionize Health and Safety:** We will work with others to accelerate cures for diseases; improve healthcare access and affordability; and build smarter, safer workplaces. Our Pandemic Response Technology Initiative, for example, aims to improve the diagnosis and treatment of COVID-19.

https://www.intel.com/2030goals

Intel's 2030 Strategy and Goals

- **Make Technology Fully Inclusive and Expand Digital Readiness**

- **We aim to partner with 30 governments and 30,000 institutions worldwide to empower more than 30 million people with AI skills training for current and future jobs**

- **The Intel® AI for Youth program, for example, empowers students to learn while creating their own social impact projects**

Intel & ITU-D

- WSIS
- WTDC
- Study Groups
- Telecom World (Digital World)
- GSR
- ITU Regional Offices
- Broadband Commission
- ITU Academy
- Other ITU-D Studies (such as Last-mile Connectivity Toolkit)

ITU-D SG Questions

- Q1/1 Strategies and policies for the deployment of broadband in developing countries
- Q5/1 Telecommunications/ICTs for rural and remote areas
- Q1/2 Creating smart cities and society: Employing information and communication technologies for sustainable social and economic development
- Q2/2 Telecommunications/ICTs for eHealth

Broadband Commission

Working Groups

-The State of Broadband Reports

-Digital Learning

-Digital Transformation of Education: Scholl Connectivity

-The Promise of Digital Health

-Epidemic Preparedness

-Education: Digital skills for life and work

-Digitalization Scorecard

-Digital Gender Divide

-Digital Health: Government Leadership and Cooperation between ICT and Health

-Enabling the Use of ICTs and Broadband: Stimulate ICT Adoption (Demand Creation)

Broadband Connectivity

We want to enable high-speed and high-quality, widespread, affordable broadband in all countries extending computing technology to connect and enrich the lives of every person on earth.

- **High-speed and high-quality broadband technologies**
- **Demand creation programs**
- **Affordability**
- **Financing Mechanisms**
- **Digital literacy and skills**

High-speed Broadband Connectivity

- 5G and Wi-Fi are both essential and complementary in providing high-speed broadband connectivity to the world
- Both technologies see continuously growing traffic and usage
- Mobile broadband networks covers 93% of the world's population (5G networks cover 15% by the end of 2020).
- 5G will cover 60 percent of the world's population in 2026 and 5G subscriptions to reach 3.5 billion in 2026 (Ericsson)
- By 2022, ~60% of global mobile traffic will be offloaded to Wi-Fi and 51% of total IP traffic will be Wi-Fi (Cisco)
- High-speed broadband connectivity provides digital equity (education, health, agriculture etc.)
- Intel has strong business interests in both technologies


The Bigger Picture
5G IS A CATALYST FOR A NEW PARADIGM OF COMPUTING
EDGE
NETWORK
CLOUD
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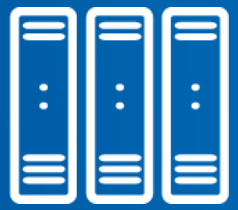
Network Transformation Foundational to 5G Infrastructure

Legacy

Custom
Proprietary
Hardware Defined

Modern, Cloud-ready

NFV + SDN Orchestration



Software Defined
Open Platforms
Virtualized Containers

Next Generation Networks

Analytics Cloud Native

5G

Network Slicing
Analytics Core to Edge
Visual Cloud

Cloudification brings:

- Intelligence where you need it
- Flexibility and agility
- Single scalable architecture
- New services

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Building the Foundation for the 5G Era

Devices/IoT | **Access/Edge** | **Core** | **Cloud**

INTEL PORTFOLIO SPANNING DEVICES, NETWORK, AND CLOUD

PROCESSORS — intel ATOM inside | intel CORE inside | intel CUSTOM | intel XEON inside

ACCELERATORS — intel MOVIDIUS inside | intel eASIC inside | intel FPGA inside

MEMORY — intel OPTANE DC PERSISTENT MEMORY

CONNECTIVITY — Intel® Ethernet Controller | Intel® Silicon Photonics

SOFTWARE — OpenVINO | OpenNESS

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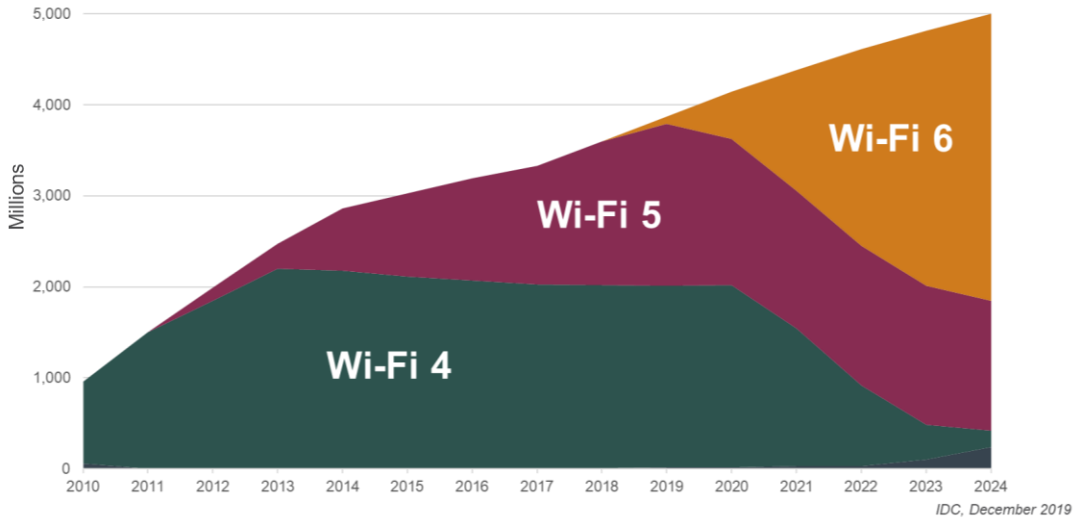
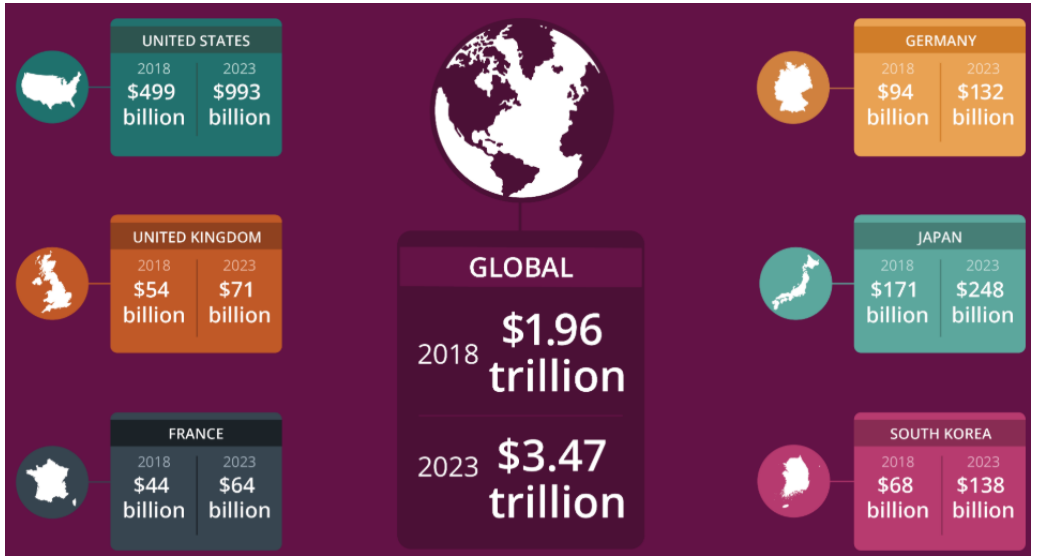
Wi-Fi Market Penetration and Economic Value

Wi-Fi shipments at an all time high



~2 trillion in economic value in 2018

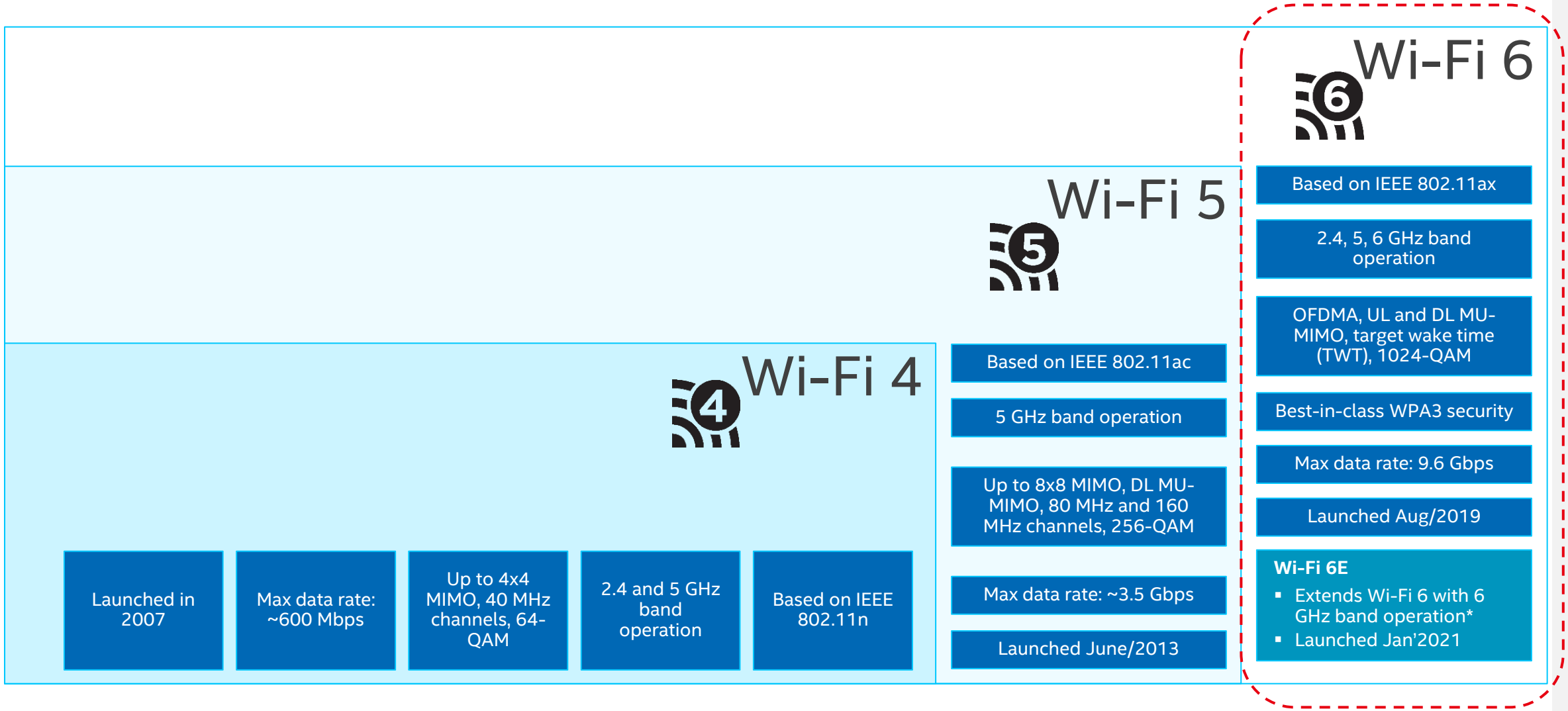


https://www.wi-fi.org/value-of-wi-fi

By 2022, ~60% of global mobile traffic will be offloaded to Wi-Fi and 51% of total IP traffic will be Wi-Fi*

* https://www.networkworld.com/article/3341099/wi-fi-6-5g-play-big-in-ciscos-mobile-forecast.html

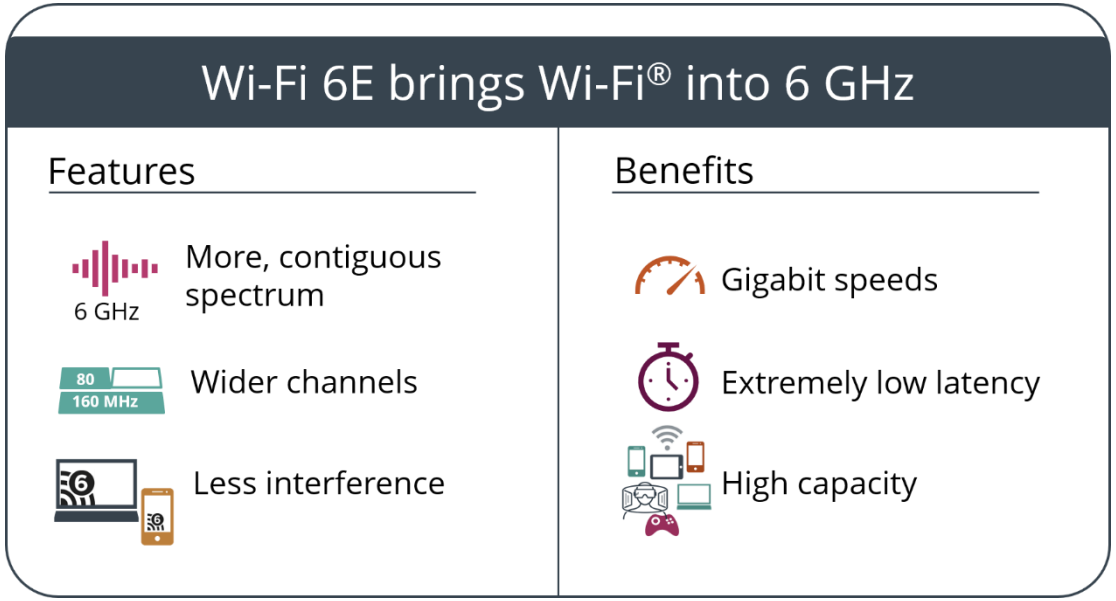
Current Generations of Wi-Fi



Wi-Fi 6E Extends Wi-Fi CERTIFIED 6 into 6 GHz

Good stewardship of the 6 GHz band begins with Wi-Fi 6E certification

- Wi-Fi 6E devices can operate in the 6 GHz band
  - Six times total capacity of 2.4 and 5 GHz
  - Up to seven contiguous 160 MHz channels
  - Less interference with legacy devices as greenfield
- The Wi-Fi CERTIFIED 6 program extends into 6 GHz to support Wi-Fi 6E devices
  - Wi-Fi 6E is a Wi-Fi CERTIFIED 6 certification option
  - Started Jan 2021
  - Ensures interoperability
- Wi-Fi Alliance certification drives worldwide interoperability of Wi-Fi 6E devices resulting in a broader ecosystem



Wi-Fi 6E highlights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