New study quantifies economic value Wi-Fi® provides worldwide

In 2018, the economic value provided by Wi-Fi is nearly $2 trillion, and is expected to grow to almost $3.5 trillion by 2023 according to a new study commissioned by Wi-Fi Alliance®. The United States makes up a quarter of that value, providing $499 billion in economic value in 2018, and growing to nearly $1 trillion in 2023.

Today, the value Wi-Fi provides to the global economy rivals the combined market value of Apple Inc.¹ and Amazon². Each market studied shows expansive growth in value by 2023, doubling in the United States and South Korea. The fact that Wi-Fi has become a key complementary technology for enterprise and carrier networks and an essential part of the home indicates this value will only rise as next generation products and deployments become available over the next several years.

Wi-Fi is one of the greatest success stories of the technology era, and its societal benefits have long been known. Wi-Fi has connected and entertained people and has assisted in the creation of new technologies, industries, and careers the world over. There are more than nine billion Wi-Fi devices in use³, and individuals, families, governments, and global organizations depend on Wi-Fi every day.

Defining and quantifying economic value of Wi-Fi

The study defines economic value by looking at the tangible, economic gains that Wi-Fi provides consumers and producers, plus net contribution to GDP. Economic gains are termed as economic surplus, which includes consumer and producer surplus.

**Consumer surplus**: Total amount consumers are willing to pay for a product or service compared to going without it

**Producer surplus**: Economic benefit producers earn from a product or service

**GDP contribution**: Market value of all final goods and services produced in a period

The value of the consumer and producer surplus and GDP contribution is defined by multiple inputs, including the impact that Wi-Fi contributes to the economy in public, residential, and enterprise networks, device manufacturing, cellular network offload and carrier revenue, among other factors. Using the United States as an example, the study uses available data to estimate key contributors to surplus and GDP.

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¹ Bloomberg, 2018
² Market Watch, Sep 2018
³ ABI Research, 2018
The value that residential and enterprise Wi-Fi networks provide contribute more than half of the value in the United States.

Growth and demand for Wi-Fi projected to surpass available spectrum

Wi-Fi is continuously innovating, providing solutions to meet the growing user demand and maintain quality connections wherever users go. Wi-Fi 6, based on IEEE 802.11ax, provides the capacity, coverage, and performance required to give a quality experience even in the most demanding environments. Increased security through Wi-Fi CERTIFIED WPA3™ and advances in Wi-Fi network intelligence work together to bring the world closer to the goal of connecting everyone and everything, everywhere.

To continue to realize the benefits Wi-Fi provides to society and to economies the world over, adequate spectrum is required. Current worldwide unlicensed spectrum allocations are not enough, and the Wi-Fi Spectrum Needs Study indicates that demand for Wi-Fi will outpace available spectrum in the next two years. If action is not taken, users worldwide are likely to experience a spectrum shortfall by 2020.

About the value of Wi-Fi study

Wi-Fi Alliance commissioned a study, completed by Telecom Advisory Services (TAS). Headed by TAS president Dr. Raul Katz, this study uses available data to analyze the economic contribution of Wi-Fi in 2018 and forecast expected economic value in 2023. The study, which also estimates global economic impact and job creation attributed to Wi-Fi, focuses on six world economies. The countries detailed in the report include the United States, United Kingdom, France, Germany, Japan, and South Korea.

Download the study: The Economic Value of Wi-Fi: A Global View (2018 and 2023)

Wi-Fi: Technology to trust

Since 2000, Wi-Fi Alliance has been driving the adoption and evolution of Wi-Fi through its Wi-Fi CERTIFIED™ program. The Wi-Fi CERTIFIED logo designates products with proven interoperability, backward compatibility, and the highest industry-standard protections in place. Wi-Fi CERTIFIED devices can communicate with previous and future generations of Wi-Fi technologies, supporting use cases including seamless network access, multimedia, and device-to-device connectivity.

Wi-Fi technology performance has advanced by more than 100 times since its inception, and continues to evolve over time. Wi-Fi CERTIFIED devices give consumers confidence that the product they purchase will deliver a good user experience, with the security protections needed for next generation connectivity.

Learn more: www.valueofwifi.com