

Project AirGig: 500 Patents & Applications, One Great Idea



Project AirGig is a 21st century technology. But it has roots in AT&T’s 143-year-old legacy of innovation. Irwin Gerszberg, one of the lead inventors of Project AirGig, has fond memories of AT&T Bell Labs as a boy growing up on a rural New Jersey chicken farm in the 1960s.

In 2012, under Irwin’s direction, a small team of people began exploring the possibility of delivering high-speed broadband over power lines between Internet Service Providers (ISPs) and neighborhood utility poles. From there, homes and offices would be close enough to connect wirelessly. Until then, the idea of delivering electromagnetic waves over wires was a mere abstract concept.

Today, the Project AirGig team has more than 500 patents and applications related to the technology, which all ladder up to a multitude of “mini-inventions” that make up Project AirGig.

Here are 3 of the most exciting inventions the team has discovered on this journey so far.



Plastic Receivers

The team has invented plastic transmitters that send electromagnetic waves over (but not through) the power line. A unique hinged egg-shaped design allows the receivers to be easily snapped over the power line, reducing installation costs to a minimum.



Two Way Smart Grid

With Project AirGig, we could collaborate with utility companies as they evolve toward the “smart grid”. Utility companies can use Project AirGig capabilities for real-time management of their power lines, enabling a wide variety of smart-grid applications.



Potential for High-Speed Internet Globally

Project AirGig has opened the door to the possibility of broadband internet connectivity for nearly everyone currently served by an electric utility. It’s a first-of-its-kind technology that is expected to deliver broadband connectivity to homes and mobile devices wherever there are power lines — whether urban, rural or underserved parts of the world.



While Thomas Edison and Nikola Tesla revolutionized electricity systems in the late 1880s, it was Irwin’s team of scientists that discovered how to transmit high-speed broadband over the same cables that deliver electricity. While Edison gave the world the light bulb, Irwin’s hope is that Project AirGig will one day light up the world in a different way – with high-speed broadband internet.

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