



INDUSTRIAL

# Advanced IIoT needs Advanced Network Infrastructure

**The Industrial IoT market (IIoT) represents yet another area where digitization and high-speed connectivity are driving a revolution in factories and warehouses.**

Lowering cost by improving speed and efficiency are at the core of this push and the industry is taking note. The pandemic saw a huge increase in the size and number of warehouses while factories were pushed to the limits of Just In Time manufacturing.

Between these two markets, warehouses and industrial manufacturing, there are over 10 billion square feet of floor space. What do both of these have in common? They need a massive upgrade in connectivity and Airvine is here to deliver.



## State of the Factory

**Manufacturing has entered the digital age, with numerous standards such as Industrial 4.0 defining the path.**

Today invention is outpacing the infrastructure available as the cable plant that exists was installed years ago with a mission of connecting computers and maybe a VoIP system. This aging infrastructure is now being tasked with supporting 3D printing, AR/VR, move big data around in real time, robotics and robotics being controlled by a centralized AI. These networks are deployed in harsh (when compared to offices, MDUs and hospitality facilities) environments with heavy machinery in constant motion. Laying new cable, or just re-routing existing cables can be challenging given the 16 to 24 hours of operation per day allowing small windows for network upgrades.

**■ ■ The Fourth Industrial Revolution, 4IR, or Industry 4.0, conceptualizes rapid change to technology, industries, and societal patterns and processes in the 21st century due to increasing interconnectivity and smart automation. – Wikipedia**





# A single warehouse can be 100,000+ square feet requiring cable runs of thousands of feet

**Both of these applications are ripe for a flexible, high capacity wireless alternative.**

The WaveTunnel™ wireless backbone by Airvine offers a faster, simple and secure high performance solution to connecting devices across the IIoT landscape. WaveTunnel is the only Non-Line of Sight (NLOS) multigigabit 60GHz solution on the market. Leveraging the vast capacities and virtually zero interference inherent in this band, WaveTunnel nodes steer around corners and blast through most interior barriers making installation as simple as 1,2, 3. All of this is achieved with advanced RF and system design meaning WaveTunnel nodes can be deployed where they are needed connecting advanced machinery or Wi-Fi APs, not limited by hardwired, static cable locations.

These networks are not only robust but are highly secure with 3 layers of security powered by Airvine's VineOS operating system. A 100k square foot warehouse can be completely covered with WaveTunnel backbones in days at a fraction of the cost of running new Cat6A ethernet. Installing a WaveTunnel node is as simple as mounting, plugging in power, and configuring basic parameters using your smart phone. As each node is powered up it automatically finds the previous node installed and using beam steering delivers an optimal connection.

**Update and future proof your operational capabilities with WaveTunnel by Airvine. The next generation of indoor wireless.**



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