











# Fast and reliable internet is now essential in schools, from kindergarten to university.

Campuses and dorms are buzzing with some of the heaviest internet users - teachers and students. They need powerful networks to stream lectures, join online seminars, learn remotely, and connect all their devices.

# **Challenges in Modern Educational Institutions**

# HIGH DEMAND FOR BANDWIDTH

Students and faculty simultaneously stream videos, participate in video conferences, and work on remote projects.

### **IOT INTEGRATION**

Devices for student tracking, video security, and digital door locks are becoming increasingly common.

### LEGACY INFRASTRUCTURE

Many educational buildings are equipped with outdated CAT 5 Ethernet, supporting only up to 100 Mbps, which is insufficient for today's needs.



WaveTunnel<sup>™</sup> by Airvine

### What Drives the Gigabits in Education

#### **STREAMING SERVICES**

Educational resources often include high-definition video content from platforms like Netflix, YouTube, and Hulu, which require 5-25 Mbps depending on the resolution.

#### **ONLINE GAMING**

Used in recreational and sometimes educational contexts, gaming bandwidth varies significantly, consuming from 30 Kbps to several Mbps.

# VIDEO CONFERENCING AND COMMUNICATION TOOLS

Essential for remote learning and meetings, video calls require 1.2-3.8 Mbps depending on quality.

#### SOCIAL MEDIA

Frequently used for both educational and personal

communication, social media can consume 2-5 Mbps for activities like video uploads and high-resolution image viewing.

# MUSIC AND VIDEO DOWNLOADS

Critical for downloading educational material, requiring 5-50 Mbps depending on file size.

#### SOFTWARE UPDATES

Necessary for maintaining software tools and security, updates can require a few Mbps to tens of Mbps.



WaveCore<sup>™</sup> by Airvine

# **Airvine Solutions for Education**

Airvine offers innovative wireless Ethernet backbone solutions — the Wave products — that revolutionize network infrastructure for educational institutions.

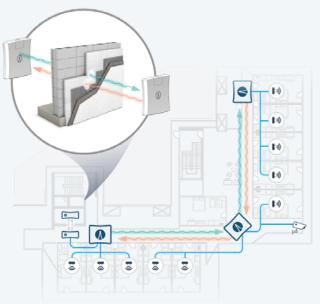
These solutions leverage advanced wireless technology to deliver multi-gigabit per second data transfer rates, bypassing the need for invasive and costly wired installations.

Designed to penetrate concrete walls and navigate around obstacles, the unique technology from Airvine provides an unparalleled solution for both modern and historical buildings where traditional cabling is impractical.

# **Key Benefits of Airvine Solutions in Education**

# MINIMAL DISRUPTION

Airvine solutions can be quickly installed without the need for disruptive construction, minimizing downtime.



WaveTunnel and WaveCore Example Floorplan

# **COST-EFFECTIVE**

Compared to traditional wired solutions, Airvine's solutions provide significant cost savings, freeing up educational budgets for other critical needs.

# FUTURE-PROOFING

With growing demands for IoT applications and high-density connectivity, Airvine ensures that educational institutions remain at the forefront of technological advancements.

# **E-Rate Funding Advantage**

Recognizing the financial constraints that many educational institutions face, Airvine is a trusted E-Rate vendor, enabling schools and libraries to utilize the E-Rate program to fund high-speed internet infrastructure upgrades.

The E-Rate program is a federal initiative that provides discounts on telecommunications and internet services for schools and libraries. By partnering with an E-Rate vendor like Airvine, schools can significantly reduce upfront costs.

# **Contact Us**

Visit us at <u>www.airvine.com</u> or contact our support team at <u>info@airvine.com</u> for more information or to learn more about E-Rate.





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