Bringing Wi-Fi to the Classroom

Today's students represent the first "digital natives"—the first generation to grow up with smartphones, tablets, and technology as a natural part of life.

For the first time ever in this decade, students bring their smartphones and tablets to school. And educators realize they can leverage this technology to keep students engaged. In fact, teachers have discovered that technology in the classroom has long-term benefits to the success of budding learners.

Using consumer technology as part of the school curriculum enables teachers to build a new way of learning, encourage student collaboration, and develop innovative lesson plans. However, many schools struggle with bandwidth capabilities needed to sustain Wi-Fi technology and can't afford to update old infrastructures that can't support current tech initiatives.

Despite the fact that schools want to support Wi-Fi technology, they're limited by inadequate IT support and tight budgets. Wi-Fi technologies in schools need to sustain technology integration now, as well as in the future, so administrators should be aware of the hurdles and what's necessary to create the proper bandwidth for better learning.

Main Priorities for School Wi-Fi Networks

Integrating the right Wi-Fi capabilities in schools isn't easy, but it is necessary. Before any district can begin to upgrade its infrastructure, it must:

- Have an IT team capable of integrating Wi-Fi or have the budget to outsource to a firm that can
- Know the type and amount of traffic each school will generate
- Install the proper equipment to provide the necessary bandwidth
- Install the necessary software and firewalls to prevent access to inappropriate or unauthorized sites
- Educate teachers and administrators on the proper use of Wi-Fi, so as not to waste bandwidth or expose the district to unnecessary security breaches

These last two points bear an extra mention: Schools deploying Wi-Fi need the capability to block unwanted traffic from unauthorized applications, such as inappropriate content, malware, and harmful pop-up ads. Students who bring their own devices to school should never be at risk of accidentally opening unsuitable content or falling victim to a virus.

Bandwidth Priorities for Wi-Fi in Schools

Today's students learn well through video—a medium in which they feel exceptionally comfortable. Districts should install Wi-Fi networks with this priority in mind. Video requires more bandwidth to stream than standard text content, so a school's Wi-Fi bandwidth must be up to par to avoid low-resolution footage, slow download speeds, and interruptions.

Tablets are the devices of choice for many schools undergoing technology integration due to their relatively low cost and robust capabilities. Schools need to take into account the number of students who will be using tablets—whether school-distributed or personal—when configuring the Wi-Fi network.

Benefits of Wi-Fi in School

Incorporating the correct Wi-Fi network in a school enables learning, student engagement, and enhanced educational outcomes. When students have the freedom to create their own content and share it with peers,

collaborate efficiently on group projects, and learn how to use today's technology with ease, they gain important life skills.

If your school doesn't invest in proper management controls while configuring a Wi-Fi network, students might find it difficult to use their devices to their full capabilities and will struggle with a sluggish connection. A properly established Wi-Fi network, however, can open the doors to successful technology integration, enhanced student learning, and a better overall environment.

While IT staff and budget restrictions may prove difficult to remedy, it's important that today's schools make Wi-Fi integration a priority moving forward. Technology isn't going anywhere, and it will only become more crucial in the learning environment as new innovations and developments occur. Wi-Fi is a universal, affordable, easy-to-use means to access a number of applications, from websites for research to video conferencing for virtual learning.

Begin the discussion with your school administrators about your Wi-Fi network today, and see the difference it can make.