

E-Rate 2.0

Optimizing Your
Strategy for

Maximum Return

*Free Kit to Choose the Right Solutions,
Guarantee a proper RF Design, and
Maximize your Strategy*



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E-Rate 2.0 Optimizing Your Strategy



Introduction

Introduction

The Universal Service Company (USAC) is a not-for-profit corporation created by the Federal Communication Commission (FCC) to manage the Universal Service Fund (USF). The USF, under a program called E-Rate, provides funding for Schools and Libraries to provide broadband access to the building (Category one) as well as fund internal connections that provide broadband access via Wi-Fi and Networking to the school classroom or library (Category two).

In 2014, the USAC made significant changes to the program to emphasize getting reliable broadband all the way to the classroom via Wi-Fi. The changes will take place beginning fiscal year 2015.

The changes to the program means the many public and charter schools will be updating their Wi-Fi and network infrastructure to allow students to use all sorts of mobile devices in the classroom.

At SecurEdge, we've been deploying Wi-Fi in schools for almost a decade, but we've never seen an opportunity like this for schools. But with the opportunity comes risk of going through the process incorrectly, or worse, choosing the wrong Wi-Fi infrastructure and being stuck with it for five years.

We're writing this guide from our experience as an E-Rate Service Provider with the hope that it will help you get the most out of your E-Rate dollars.



Designing a School Wi-Fi Network for the Future

It's safe to say that today's K-12 landscape looks very different than it did only 5-10 years ago. If you tried to design for today back then it would have been impossible due to massive technical limitations and the fact that mobile was in it's infancy. Simply put, almost everything was still wired and that made networking pretty easy.

At most schools today **the average student owns between 3-5 devices each**, from smartphones and tablets to laptops and even wearables like smartwatches. Students expect to be **connected anywhere, anytime, on any device, all the time**. This has fundamentally changed how we think and must think going forward about education and designing school Wi-Fi.

Today's K-12 schools have an overwhelmingly difficult task of supporting a wide variety of new strategies: **BYOD, 1:1, cloud based systems, interactive and personalized learning, common core and online testing**. In addition, schools must meet strict security requirements while guaranteeing the highest levels of performance across all devices, platforms and locations, both in and away from the classroom.

With the increased demand for mobile technology in our schools, designing a **secure wireless system** that is ready for today's challenges while being **capable of supporting all of your users, devices and applications** well into the future is the benchmark for every schools success.

The question now is how do you do it? Let us show you below.



Building Your School Wi-Fi Network

The SecurEdge Methodology

First we're not a manufacturer of a product, SecurEdge is a services provider. So it puts us in a position to evaluate the different vendor platforms then make recommendations to customers based on their particular needs. Each industry has different needs and we may recommend a different solution. For K-12 education, we've been recommending and deploying secure wireless networks for over 8 years. Here's the methodology behind it:

What Industry Experts Are Recommending

The SecurEdge Methodology

Mobile technology and the users demand for it are growing at such a rapid pace that in many cases your new wireless network is out of date before you even done deploying it. This is why it's incredibly important to plan accordingly as well as understand what's new and coming down the pipe line.

We find Gartner to be a good starting point for who has the best technology (Aruba has been in the leaders quadrant for the past 5 years). Here's the high level view of the top providers:



What Industry Experts Are Recommending Cont'd

The SecurEdge Methodology

Gartner Wired + Wireless Critical Capabilities

Unified Wired + Wireless	Enterprise WLAN	Small OR Remote Office	Guest Access	High Density Venue
<ol style="list-style-type: none">1. CISCO 3.862. ARUBA 3.823. HP 3.654. EXTR 3.565. HIVE 3.536. JNPR 3.52	<ol style="list-style-type: none">1. ARUBA 4.272. HIVE 3.843. CISCO 3.594. EXTR 3.295. AVAYA 3.265. HP 3.26	<ol style="list-style-type: none">1. ARUBA 3.932. CISCO 3.853. HP 3.664. EXTR 3.595. HIVE 3.565. AVAYA 3.49	<ol style="list-style-type: none">1. ARUBA 4.262. HIVE 3.813. CISCO 3.664. EXTR 3.355. AVAYA 3.315. HP 3.31	<ol style="list-style-type: none">1. ARUBA 4.032. XIRRUS 3.913. HIVE 3.894. CISCO 3.815. EXTR 3.565. AVAYA 3.52

ARUBA NETWORKS LEADS
4 OUT OF **5** **Wireless CRITICAL**
CAPABILITIES



What Are the Major Technology Firms Using The SecurEdge Methodology

Amazon, Google, Facebook, Microsoft, and Apple all use Aruba which to us reflects the validity of their technology. But what is also telling is that many of the major switching vendors including Dell, HP, Alcatel-Lucent, Brocade, and Juniper all have either partnered with Aruba or they've stopped making a wireless product and they have an arrangement to sell Aruba product.

It really is shaping up to be a Cisco vs. Aruba fight. 6 of the 8 Ivy League schools, the major technology schools, and Ohio State (one of the largest wireless deployments in the world) all use Aruba.

Locally: Davidson College, NC State, UNC- Chapel Hill, UNC-Greensboro, Wingate University (*pictured above*), Chowan University, Campbell University, Appalachian State, William Peace College and Johnson & Wales.



Mobility Systems vs. Wireless

The SecurEdge Methodology

We've seen wireless access become much more complex in the past 5 years and K-12 customers need integrated network access control for policy management and some even need integrated Mobile Device Management. A few years ago Aruba acquired Avenda which was one of the best NAC products on the market.

Since then, they've invested heavily in it (now called ClearPass), and in our opinion, it's now the best NAC product on the market. Aruba also has network monitoring & management (AirWave), edge switching, and we can connect remote campus sites easily. We just feel like they've got a complete solution set for K-12 education.

Standards Based System

The SecurEdge Methodology

SecurEdge has been deploying wireless for 9 years (me personally for 15+ years), so we've seen a lot of manufacturers come and go. Many times a company will come out with their "secret sauce" and it's not standards based - it seems like they're the first ones to go.

Aruba was created by ex-Cisco people (of course) and their wireless platform is based on IEEE and Wi-Fi industry standards which means it works and interoperates with other vendors equipment without issues. This means when I go to deploy it I don't have to worry that it might not work with a customer's switching, access control, routing or client devices.





Choosing the Right Service Provider

The SecurEdge Methodology


Lastly, above all this we propose Aruba Networks products because they have responded to our customers' needs no matter how small and have supported us in every implementation we have engaged in. We've got over 300 mobility deployments under our belt.

I have been in IT for almost 20 years and I have never had a vendor so responsive to mine and my customers' requests or needs for support. So overall, I feel like aruba has better performance, support, better features, and in most cases their system actually costs less than the other platforms on the market.

“ At SecurEdge Networks, we want to provide the platform that people use to increase productivity, learn more effectively, collaborate, and grow their businesses.”

- Philip Wegner | Founder, CEO

SecurEdge Networks



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Putting it All Together

[Learn More](#)

The old adage proper planning prevents poor performance has never been more relevant than when thinking about how to deploy wireless infrastructure in a school. Over the next two years with the changes in E-Rate funding, along with the demands of common core and online testing; we're poised to see a lot of school districts either upgrading their wireless networking or completely replacing it with newer (and much faster) wireless standards.

Even if you are able to tap into E-Rate or other grant funding, you've got one shot that comes around every 4+ years. And if it's done wrong, the consequences can be a bad classroom technology experience at best, at worse it could mean the school board and parents come demanding some answers.

As an experienced E-Rate service provider we have successfully helped hundreds of schools design and deploy their wireless networks using E-Rate funding. If you need any help with your design, wireless planning and/or deployment we're here to help, simply call us at 704.688.9360