

Create Classroom Excellence With Instruction and Infrastructure

An interview with Dr. Melanie Honeycutt, Chief Information Officer, Burke County Public Schools



“THERE IS A STRONG RELATIONSHIP BETWEEN INSTRUCTION AND INFRASTRUCTURE IN THE CLASSROOM... WHEN THE TECHNOLOGY IS CONSISTENTLY PERFORMING INVISIBLY TO SUPPORT LEARNING, EVERYONE WINS.”

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IN EDUCATION, TIMES ARE ALWAYS CHANGING. You must move with the needs of the times, but you need a consistent vision to be an effective leader.

Dr. Melanie Honeycutt works with 12,000 K-12 students in 27 schools. School districts need to have the infrastructure to support new Wi-Fi 6 devices before they begin to appear in classrooms. With these measures in place, school districts improve education and will be best able to prepare students for the future.

How important is it that students have a good experience with technology?

It is key that students are confident in using technology. They need to have a good experience, and they need to use multiple platforms. Many times, a district will just pick one platform, but you can't do that because of the wide range of devices and applications that K-12 students use. Our kindergarten through second grade classes have iPads. Third grade and fourth grade have touchscreen computers. Fifth grade students have a different type of laptop. Our sixth through twelfth grade rooms have multiple kinds of devices that they work with. Our students are exposed to multiple formats, and it's hugely important that the technology works because instruction time is precious. Also, students need to have confidence that technology can consistently do what is expected. This is vitally important for the rest of their lives and careers.

What does Wi-Fi 6 technology enable you to do that you could not do before?

Our district is in the beginning stages of rolling out Wi-Fi 6. Wi-Fi 6 will allow students to connect quicker than some of the older technology. The big benefit is in being able to support a classroom full of students simultaneously streaming videos. In addition, this will allow that release when kids change to another classroom so it's not bogging down the access points.

There is a strong relationship between instruction and infrastructure in the classroom. While the teacher is delivering the instruction, the technology is playing a highly important role in making it happen. When the technology is consistently performing invisibly to support learning, everyone wins.

You must change all the time. We just went to one K-12 school, and we're getting ready to hand out the devices in August. We have some older devices, and we need to make sure that the access points can handle those devices in the schools. You have to build the infrastructure, start building the devices, have the infrastructure piece

Education Applications for High-Density Wi-Fi 6 Connectivity in Burke County	
Streaming Video	<ul style="list-style-type: none"> Connects the conference center at the district office, which is used for Western North Carolina School Board Meetings Apple TV and YouTube streaming over the wireless network for student viewing
Google Docs	<ul style="list-style-type: none"> Connect via Google Suite over the wireless network for both students and faculty
BYOD Environment	<ul style="list-style-type: none"> Support BYOD environment for students as well as guest access
Security	<ul style="list-style-type: none"> SSO is used widely across the network

and move forward with the devices. Wi-Fi 6 will change the performance of the system in every learning environment in the district, but it is not going to change how the learning is done. The only place it might affect us would be in our elementary school where there are a lot of older devices, which will soon be upgraded. By having a Wi-Fi 6 network in place, that transition will be smooth.

In education, times are always changing. You must move with the needs of the times, but you need a consistent vision to be an effective leader. Our superintendent supports our initiatives to refine the infrastructure. He understands that the technology infrastructure must be efficient for the instructional part to happen. Price is important, but it's not everything. We have been with Xirrus, now Cambium Networks, for a while. To us, it's more important that we get good customer service and our needs taken care of. We are happy to work with a vendor that leads us in the direction we need to go while staying within our budget. That's what we are able to do with Cambium Networks as we change our access points in our district.

What are the most valuable attributes of a great tech department?

Education professionals must work well together as a team. You need the technical side, and you need instructional people to share challenges and collaborate. If you don't, there will be inefficiencies and learning is compromised. As a leader, you cannot know everything, so you can't manage every detail. You need to build relationships that create collaboration, and then step back and trust the team to do what is necessary. I trust them enough to say, "Look, here's the plan. Here is how it helps our students. Here are the areas where we have obstacles to overcome." Then, I trust them to develop and implement the solution. A good education technology team needs a technical component, an instructional component and a leader that is willing to let go.

Your customers include administrators, but they also include teachers. How do you know when you are doing a good job?

Teachers will be the first one to tell you if there are any issues. We do a teacher working condition survey, which tells us a what they think. But my engineers, our instructional tech facilitators and I are all out in the schools. They're pleased with what we have as far as infrastructure and wireless, but we always need to be prepared to provide them with more.

How important is remote network management across the 27-school district?

Cloud management helps us monitor and troubleshoot our network more efficiently. Our WAN engineer's main job is wireless, and he runs that entire suite of management tools. We can keep up with what's being used on the network and which programs are taking up a lot of bandwidth. For example, the system identified that some students were streaming a lot of movies while they were eating in the cafeteria. We immediately turned that down.

The system also tells us when we are having issues, and we quickly solve these without sending a technician. This saves learning time and increases the confidence that our students and teachers have in technology. Recently, there was an issue at one of our brand-new elementary schools. With XMS, we were able to immediately see that the issue was clearly not in the wireless network. It was our mobile device management. By utilizing the system tools, he was able to immediately resolve the issue without having to send a technician into the classroom, which was ideal.

For decades, Burke County has been known for furniture production. We now have many North Carolina state employees, along with healthcare, auto equipment manufacturing and social services facilities. These employers all use technology. We involve our community and our career technical education people so that we can make sure that we are meeting the needs of our changing population. It's important that our young people are exposed to technology and how to use it. Young people today have never known what it's like not having a device. Our technology in the schools needs to keep pace, and they should simply work with new or old devices. Our educators and infrastructure technicians enable positive technology experiences to prepare our students for the future.

[Find out more about education Wi-Fi solutions from Cambium Networks.](#)