

## EDUCATION

Making sure our kids are college and career ready



### The Challenge

Bethann Orr has a grand technology vision for the students of Barnstable School District. Fortunately, Barnstable is one of the school districts in the country that actually has the resources to enable her to pull it off.

As one of the largest districts in Massachusetts, Barnstable comprises 5,300 students and 800 staff. It includes six elementary schools, one intermediate, and one high school. That makes it one of the largest in the state.

The district has benefited from funding from a variety of organizations, including federal and state grants, town capital improvement projects, and school operational funding. The non-profit organization OpenCape secured \$40 million dollars to build a 300-mile fiber network over the Cape Cod Canal all the way to Provincetown. The network is now managed by CapeNet and Internet access is now available to towns, schools and libraries. CapeNet connects to the Town of Barnstable fiber-optic network and provides big bandwidth to the schools in Barnstable.

Orr, who is the IT Director, credits the Barnstable School Committee and the Town Council for appropriating the funding for technology, professional development and training. "When you have that type of investment, it opens up a world of opportunity for your students and you want to make sure you use it wisely," she says. "So this is an enormous responsibility."

**Number of Users:** 400 (expanding to 5,300)

**Industry:** Education

**Products:** Ruckus Wireless

**Customer Since:** 2014

The heart of Orr's vision is Mobile Learning. She recently launched a three-year effort to reach every student in every Barnstable school. The plan relies heavily on the high-bandwidth infrastructure and features a phased rollout of Wi-Fi along with the deployment of digital/cloud curriculum.

**“Rolling out 400 iPads to kids is not just purchasing iPads. It’s making sure that the infrastructure is in place to support those devices. And it was all handled very professionally and went off very smoothly. Harbor Networks did a phenomenal job.”**

Bethann Orr  
IT Director  
Barnstable School District

### The Solution

Because of the nature of school funding, Orr's vision is being implemented in stages. It was decided that Phase One would be the deployment of 400 iPads at Barnstable Intermediate School.

"BIS was the first school chosen because of the importance of making sure that the wired and wireless infrastructure could support the investment of 400 iPads," Orr explains. "It was a great school to start with because we have 37 access points."

Orr's team orchestrated a state-wide bidding process. Different vendors were brought in and access points were set up in a sandbox. The winning bid would not just support BIS, but all of the schools in Barnstable School District. Harbor Networks successfully proposed and demonstrated a solution based on Ruckus Wireless's ZoneFlex.



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"We got them all in, we ran their products, we ran a mock up of the network," recalls Orr. "And the team that I work with, which I highly respect, voted for Ruckus and Harbor Networks. The technology met our needs and they were really impressed with the service Harbor Networks could offer."

### The Differentiator

"Despite the investment in technology, I was not able to get additional staff," says Orr. "So we need to have the right people from the outside working with our team. Everybody understands rollouts never goes smoothly and there are always small problems."

"I needed someone I could call on in a heartbeat that would help us. I needed that support. I needed a company that was going to come in and stand side-by-side with me. Now Outsource is my favorite word."

### The Rollout

"Harbor Networks did a lot of work helping us understand how the model was going to work," says Orr. "And they did an incredible job matching our needs to our infrastructure."

"We had a great rollout," she recalls. "The Ruckus Wireless installation enabled us to roll out all 400 iPads in one day. Remarkably we only had a couple of minor glitches."

During the process, Orr used Ruckus's FlexMaster reporting tool to provide progress reports to the school committee, which was keeping a close eye on the proceedings. The committee and all of the backers were pleased with the results.

"The folks from Harbor walked into every classroom at BIS. They tested every single room where the access points were going to go. Once they were all installed, we started to do some testing with regards to the heat maps, and coverage, and that was phenomenal work."

### Next Steps

"The model works," says Orr. "So now our vision is complete in our first school, and we can take that model and move it to any of our schools now."

"Next we're moving to Barnstable High School, which has two thousand kids and is the third-largest building on Cape Cod. There's a lot of concrete, so I will need a lot of wire and a lot of wireless. We mocked up the model for the eight buildings we are going to eventually have to cover over the next three years."

"Because it's so large, I have seven closets for the high school, including one main closet for all the switching and wiring. The main closet is where I get all the connections from OpenCape. And then we distribute the Cat 6 cable for wireless that through the IDF closets."

Thanks to the endowments and the efforts of Orr and her team, the school district is widely recognized for being technologically advanced. Orr has been working side by side with the teachers to understand what mobile learning is and how it's going to change education.

"I'm looking to have a long-standing with Harbor Networks," concludes Orr. "This is just the first leg, and that's what Harbor Networks is going to do."

"They are enabling us to say here are the essential skills," she says. "It's enabling us to make our students career and college ready. It's furthering education. It's so exciting, I'm so proud of what the team has accomplished!"

