

Collegium Charter School : **Case Study**



2020 UPDATE

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IDAS™ Technology Improves
On and Off Campus Communications



A case study prepared by Icom America, manufacturers of high-performance, award-winning radios for over 60 years.

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IDAS™ Technology Improves On and Off Campus Communications

Collegium Charter School is an independent K-12 charter school in Exton, Pennsylvania. There are around 2,800 students and 420 faculty members spread across seven buildings. It is the second largest charter school in Pennsylvania.

The school was looking for more reliable and cost effective communication solutions when an Icom dealer introduced them to the Icom IDAS™ product line. For nearly five years, Collegium has used Icom radios throughout their campus, with great results.



Featured Products:

- VE-PG4 Gateway
- IP Radio: IP501H
- IDAS™ Portables: F4161, F4230D, F2000D & F4400D
- IDAS™ Mobiles: F6061D & F6220D

Limitations Reducing Communication on Campus

Up until five years ago, Collegium used 'push to talk' phones and FRS radios to communicate among staff. This equipment worked, however there were several restrictions, which hindered the school from obtaining the level of communication they desired, especially with plans to expand the campus on the horizon.

Like most schools, Collegium had a budget to consider and providing every staff member a push-to-talk (PTT) phone was not within it. Cost became a major setback with this equipment. The school wanted to give the staff radio access campus-wide, and it was not possible with the equipment already in place. The limited communication range was also limited, as the school could not reach teachers or staff when using the outdoor classrooms or on off-campus field trips with students.

Upgrading to Professional Two-Way Communications

Collegium needed effectively communicate throughout all seven buildings with teachers and staff, as well as, with administrators off-campus. Their previous communication tools were no longer a viable solution.

COMMPATHS, an Icom dealer in Pennsylvania, met with the school five years ago and provided them a couple of professional two-way radio options. After a few days of testing, Collegium decided to go with Icom, finding the radio's performance was ideal: the radios were dependable and within budget.

Today, using IDAS technology, there are approximately 190 Icom radios throughout the school, as well as equipment on three school buses. They use a four-channel IDAS single-site system. Each building has a dedicated Talkgroup and a simplex



channel. A special Talkgroup has even been reserved for emergencies. The staff use the hierarchical calling features only available in IDAS commercial radios to communicate with disparate groups, or the entire campus as needed, regardless of the selected channel. During the summer of 2016, the school added two more channels and moved the repeater station to a more centrally-located building to increase efficiency and to allow for additional growth.

Using Icom to Communicate On and Off Campus

Since the installation of Icom equipment, communication has streamlined, on and off campus. All teachers, administrators and staff members can communicate with each other, providing a safer environment for everyone.

Icom radios helped facilitate a smoother morning drop-off and afternoon pick-up. Users can access traffic channels and communicate with bus drivers, providing an organized and safe transition for parents and students. The range of communication has also increased.

An unexpected benefit was the improved efficiency within the kitchen. At Collegium, food is delivered between multiple buildings. Now kitchen staff and food trucks are able to communicate, increasing productivity, food safety, and freshness.

Overall, Collegium increased their coverage throughout the campus and with all staff members. Essentially the school now has another 'set of eyes' on and off campus, which increases security and safety for all students and staff members.



► 2020 UPDATE: Additions and Improvements

We recently caught up with Bill Duffy, the Director of Operations, Campus Safety, at Collegium. We wanted to see what improvements have been made to their digital Icom IDAS™ communications system since COMMPATHS' installation in 2015. The campus has been covered by the use of Icom's IDAS F4161, F4230D, F2000D, F4400D portables, the F6061D, and F6220D mobile radios. Over the past few years, the school discovered they have some slightly different needs on campus—and off.

It is crucial for the school to be able to communicate with transportation buses. With a wide range of situations, such as field trips, athletic games, or other events with school-provided transportation, the need for a radio that can stay connected while off-campus and out of repeater range was imperative.



Safety and security remain a top priority for Collegium, so that's why they reached out to Icom to seek assistance in their mission to improve connectivity. Their needs were simple—to stay connected. Icom suggested they utilize Icom's LTE-CONNECT IP501H radios along with the VE-PG4 gateway. The VE-PG4 gateway allows their original IDAS radios to communicate seamlessly with five new IP501H radios that operate on Icom's own LTE network. Technicians preconfigured the VE-PG4 gateway to pass any traffic between the IP501H radios and the donor radios in the server room. Donor radios were used for the emergency channel (TG), and the administrative Channel (TG) and the Operations channel (TG)*. Each IP501H user can select the channel name and talk across platforms to users on each of those channels. One IP501H radio for each of their three buses, one that can travel back and forth with any staff member on the bus, and one that remains with Duffy at all times.



One of his main concerns was with one of their aging school buses. With buses traveling out of repeater range frequently, he feared that if there was an emergency, there could be an issue getting in touch with the school. Duffy informed Icom that when he first used the IP501Hs, he had to travel to New Hampshire and back (through New York City), to pick up a school bus. As a test, he brought along his IP501H. To say he was impressed is an understatement. He had zero connectivity issues and detailed just how clear the audio remained the entire time.

"I had complete service, literally as if I were sitting in the same room at my desk" – Bill Duffy, Director of Operations

In the future, Duffy hopes to upgrade the school's system with tracking and recording. Let us know when you're ready, Collegium!

*Note: LMR users only see the radio ID of the donor radio during cross-platform conversations.

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