

INDUSTRY

Education

LOCATION

Ontario, Canada

With 23 elementary schools and 9 secondary schools located across 25,000 square kilometers (that's approximately the same size as the state of Vermont), the **District School Board of Ontario North East (DSB1)** was spending a significant amount of time and money maintaining their aging public address infrastructure.

To ensure the health and safety of over 7,000 students, DSB1 needed to upgrade their communication system for daily operations and emergency alerting. With a mix of old equipment, procedures were cumbersome and inconsistent across all schools. DSB1 wanted to implement a modern IP solution to improve and introduce advanced features and functionality such as calendaring functionality and the use of custom WAV audio files to enhance their paging systems.

Challenges of an Aging System

DSB1 faced various challenges in their daily operations and responsiveness to emergency situations due to:

GEOGRAPHY

The district's schools are widespread, with the most distant schools being more than a 5-hour drive apart. Commuting is further complicated by harsh Canadian winter conditions.

SYSTEM DIVERSITY AND AGING

The schools had various outdated systems from multiple manufacturers. These systems were difficult and costly to maintain due to their age and the scarcity of replacement parts.

TRANSIENT WORKFORCE

Principals and secretaries are often reassigned to different schools over the summer break. This means they would have to re-learn paging procedures and standards due to variations in equipment and paging systems at each location.

Algo Had Everything the School District Needed

The school district IT team was tasked with reviewing their existing communication operations and identifying what was essential for a new system. Their list of desired features included:



FEATURE	PROBLEMS SOLVED
Remote management capabilities	To avoid costly technician dispatches
Scalable	One solution that has flexibility to adapt to each location or be built onto if needed
Surface mount speakers with an integrated clock	Remove extra devices where possible to reduce management efforts
Bi-directional communication	Classrooms can communicate directly with each other or the main office to coordinate plans or inform others of an emergency.
Volume/noise adaptation	Speakers can increase or decrease their volume based on the ambient noise to ensure notification or alerts can always be heard

After evaluating solutions, the district team found that Algo Communications devices fit all their needs.

DSB1 decided to deploy an Algo IP solution because all Algo devices are SIP compatible and could integrate with their MITEL phone system. To implement their new communication solution, DSB1 used the following Algo devices:

CLASSROOMS	GYM, SHOP CLASS, OUTDOORS
Algo 8190 IP Speaker-Clock	Algo 8186 SIP Horn Speaker Algo 8128 SIP LED Strobe Light
HALLWAYS	ADMIN OFFICE
Algo 8188 SIP Ceiling Speaker	Algo 8301 SIP Paging Adapter & Scheduler Algo 8300 IP Controller

Deploying Algo Products





A variety of Algo devices were implemented across the district. Classrooms now each have an 8190 IP Speaker-Clock which displays a digital clock and has an integrated call button and microphone for talkback. These speakers and the additional 8188 IP Ceiling Speakers used in hallways and other common areas use ambient noise detection to adjust volume. These speakers are also wideband, providing clear audio whether it's a voice page, pre-recorded message, or school bell.

Louder environments such as gyms, shop classes, and courtyards use the 8186 Horn Speaker and 8128 SIP LED Strobe Light. The weatherproof horn speakers are loud for alerting in these areas and the strobe lights provide a visual way to indicate an alert or announcement is being played.







To tie it all together, the team relied on the 8301 SIP Paging Adapter & Scheduler and 8300 IP Controller. The 8301 allows for bell schedules to be configured and automated, while the 8300 provides a browser-based dashboard view of all Algo IP devices on a school's subnet so administrators can quickly find a device on the network when required.

How Algo Helped the School District







Scalable deployment that integrates with UCaaS platforms



Simplified standard operating procedures for end-users

Contact us to learn more about how Algo can enhance your school's safety and operations.