

Case Study

Location: Toronto, ON

Product: Acom

Toronto Airport Takes Off with Zetron's AcomEVO



Photo courtesy of Toronto Pearson International Airport.

Zetron's AcomEVO system using the open-standards P25 CSSI is serving as the master dispatch console at Canada's Toronto Pearson International Airport.

The Greater Toronto Airports Authority (GTAA) requires the most advanced, robust, reliable communications equipment available to fulfill its mission. That's because the GTAA operates Toronto Pearson International—Canada's largest and busiest airport. Located in Mississauga, Ontario, about 15 miles west of Toronto, Toronto Pearson is the hub for some 435,000 flights and nearly 35 million passengers each year.

The GTAA relies on a centralized radio dispatch solution to ensure that the airport's operations and activities occur as they should. The system is critically important because nearly all airport operations revolve around the use of two-way radio by airport staff, public-safety agencies, and supporting organizations.

Over the last few years the GTAA has opened a new Integrated Operations Control Center (IOCC) at the airport, updated their communications equipment to Zetron's Advanced Communications (AcomEVO) dispatch solution, and connected through the Console Subsystem Interface (CSSI) to a new, P25 digital trunked radio infrastructure. The state-of-the-art system not only keeps the airport running with the clockwork-like efficiency such operations require, but it is designed to adapt to the airport's changing needs.

The GTAA and the IOCC

Unlike in the U.S., where most airports are run by municipalities, the Canadian government leases the operation and maintenance of Toronto Pearson International Airport to the GTAA, which is a private company. This arrangement has been in effect since 1996.

The GTAA has strong commitment to making the ongoing improvements and innovations necessary to ensure that Toronto Pearson is one of the world's premier international airports. Their new IOCC is a clear manifestation of that commitment.

“The GTAA created the IOCC several years ago to amalgamate the airport’s various operations centers into a single, centralized unit,” says Dan Elliott, GTAA’s Manager of Communications Systems at the IOCC. “The IOCC oversees all airport operations, security operations and intelligence, resource management, gate planning, and customer service.”

The control centers that were consolidated into the IOCC include the Operations Control Center, the Security Operations Control Center, the Resource Management Unit, the Call Center Paging Center, the IT&T Service Desk, Baggage Operations and the Maintenance Dispatch Center.

“Each of these control centers functions as a separate unit,” says Elliott, “but when the staff are in the IOCC, they are accountable to the IOCC’s manager of airport ops. This helps ensure the cohesiveness of the IOCC’s operations.”

AcomEVO wins the project

In 2012, Zetron’s AcomEVO system was selected through an RFP process to equip the new IOCC. “Our existing system was an older analog system that was out of date,” Elliott explains. “We needed newer equipment that would be able to integrate with our radios and phones, PBX system, and legacy analog infrastructure. It would also have to be able to support our eventual move to a P25 radio infrastructure and our transition over time to other new technologies. After reviewing the proposals submitted in response to our RFP, we picked AcomEVO for the project because it was the system we felt would best meet our immediate and ongoing requirements.”

Phase I: Installing AcomEVO

The project was handled in two phases by a team consisting of representatives from the GTAA and Air Canada; Zetron; and Fleetcom/Lakeshore Communications, the Toronto-based reseller that would provide ongoing local support for the system.

Phase I involved installing 26 positions of AcomEVO, each equipped with four speakers, one headset, one desk mic, one footswitch and two jack boxes. The main backroom equipment consisted of five cabinets that held 18 iDEN interfaces, 36 redundant two-wire/four-wire conventional interfaces, 168 redundant analog phone interfaces, and 16 redundant digital I/Os. During this phase, AcomEVO was integrated with the IOCC’s existing analog radio network.

Phase II: P25 integration

Phase II, which took place about a year later, integrated AcomEVO with the GTAA’s new P25 digital network through the CSSI. By necessity, it was what Zetron Project Engineer, Doug Neal, calls a “live retrofit.”

“Because the airport can never be without its communications,” says Neal, “we updated the hardware, software, and system configurations and performed all of the testing while the system was up and running. It was intense because, in an environment like that, you have to make it work, or all kinds of dire consequences can unfold. You can’t afford to slip a digit! But everything went beautifully.”

An iterative process

According to Elliott, Zetron’s flexibility played a big role in the success of both phases of the project.

“Zetron was right there all the way along and very helpful and willing to make the changes we needed,” he says. “For the initial installation of the Acom system, the screen design was an iterative process. We’d create a design, send it to Zetron, and they’d tweak it and send it back to us for another round. This process continued until we had a live screen we were all happy with.”

“The success of project was also greatly helped by the success of the training,” Elliott adds. “Between Zetron’s on-site training and the one-on-one training we provided, we were able to cut over with very few issues.”

Master console

The new 26-position AcomEVO system is now serving as the master dispatch console for the airport’s three-site, 12-channel simulcast P25 radio solution. It is a highly interoperable system that allows airport personnel to communicate with each other and with emergency personnel on other networks in nearby municipalities when the situation requires it.

Elliott especially appreciates the system’s ability to support the IOCC over time. “It’s expandable and allows us to add more staff as the need arises,” he says. “Plus, we review and upgrade the screens on a nearly annual basis to ensure that they’re up to date with our operations. We’re going through a business review right now that will probably result in some changes. And we know that AcomEVO will support us in that.” ■



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