In the wake of COVID-19, the Columbus Regional Airport Authority (CRAA) will explore how video analytics can help reduce health concerns for nervous travelers, as well as improve security and efficiency. “We’re definitely looking at how we can establish technologies and programs that will build confidence in air travel. That’s our No. 1 priority right now,” says Jodie Bare, chief innovation officer for CRAA, which operates John Glenn Columbus International Airport and two other airports in the area. “We want people who travel through the airport to realize their health and safety is top of mind for us.”

The pandemic hit airport districts extremely hard as demand for air travel plummeted. In early April, the number of daily airline passengers screened by the federal Transportation Security Agency (TSA) fell below 100,000 for the first time in the agency’s history — a decline of 95 percent compared to the same time a year earlier.

Since hitting that low point, air travel numbers are slowly bouncing back. But industry experts predict full recovery will take several years, and even then, travel patterns may be permanently altered.

At CRAA, 2020 passenger volume is only about a third of what it was in 2019, a record-setting year that saw 8.6 million air travelers pass through airport authority facilities. “On the upside, we’re starting to see people travel again;” says Bare. “But we’re still much lower than average.”

Now CRAA is exploring how video analytics can help put wary travelers at ease, while improving security and overall customer experience. The authority is finalizing an agreement with AT&T to support a series of video analytics pilot projects to test use cases for the technology. For instance, the initiative will investigate how video analytics can be used to enforce rules on social distancing and mask wearing. CRAA also will use the technology to give travelers a best estimate for expected wait times for security screening.

“Even though our passenger volumes are still pretty low, those security lines can look very intimidating because of social distancing,” says Bare. “We can allay passenger concerns by putting estimated wait times on digital message boards or perhaps by pushing those kinds of notifications to their mobile phones.”

Other potential use cases for the technology include spotting suspicious passenger behavior — using machine learning to continually improve accuracy — and automating operational processes to boost internal efficiency.

“We think there are all kinds of opportunities to leverage video analytics to make the travel experience better and safer,” Bare says.

Growing Interest

Video analytics is attracting interest from a range of organizations, particularly government agencies coping with new COVID-driven requirements, says Ariel Brassil, Director of Strategy, Smart Cities and Communities, AT&T. One reason is the technology can be deployed to address immediate requirements and then easily be repurposed for new needs when conditions change.

“The things that you’re looking at in a COVID environment, whether those are security wait times or social distancing, might not be the same as what you want to know in future modes of operation,” she says. “But with video intelligence, you can often use existing camera feeds, machine
learning and secure connectivity to deliver new insights.”

New analytics algorithms can be added and tested in a matter of days or weeks often without deploying new hardware, she says, helping ensure the longevity of these technology investments.

Special districts also can benefit from advances in network technology to support video analytics and other bandwidth-intensive applications, says David Ginn, AT&T Client Solutions Executive. For example, software-defined network technologies give organizations new flexibility and control over their network.

“This gives the customer the ability to dial up and down network bandwidth with a few keystrokes through a web portal,” Ginn says. “That really changes the game in terms of how customers access and manage bandwidth.”

Because software-defined networks let organizations increase bandwidth and add capabilities without deploying new network hardware, organizations don’t need to overprovision physical equipment to handle seasonal workload spikes or overnight data backups.

“Dialing capacity up or down, which used to take several weeks, now happens almost instantly,” he says. “You no longer need to pay for idle network capacity. You adjust network capacity nearly on demand.”

**Strategic Innovation**

Airport administrative staff, which make up about a third of CRAA’s workforce, shifted to remote work in March, and many of those employees continue to work from home, says Bare. Fortunately, CRAA laid the foundation for remote work before the pandemic hit by adopting cloud-based back-office products, virtual private network (VPN) solutions and remote desktop capabilities. Having those pieces in place made the initial transition to virtual work easier from a technical perspective.

Now CRAA is evolving communication and management techniques to fit the new virtual and hybrid work environment. For example, the organization uses virtual town hall meetings and ideation sessions, as well as employee surveys and weekly email messages to maintain connection between remote workers and onsite staff.

“This forced us to really improve as leaders and managers in how we engage our teams and our customers,” Bare says. “And because we’re virtual, we need to manage results instead of the amount of time people put in. I think that will be a lasting positive impact of the pandemic from the standpoint of management philosophy.”

Ultimately, she says, CRAA strives to take advantage of new ideas and technologies that improve internal operations and service to the traveling public.

“As our video analytics initiative shows, we’re definitely moving in the direction of being a data-driven organization,” Bare says. “That’s going to help shape our understanding of opportunities and the impact of solutions. There are so many exciting things for us to focus on, it’s just really about channeling our energy in the right places. We are an airport that is happy to be innovative.”

BEFORE THE PANDEMIC, airports were investigating and implementing video analytics and image recognition technologies to strengthen security and improve passenger experience. As with many other aspects of IT modernization, these activities have been accelerated in the wake of COVID-19 as airports look for new ways to reassure the public it’s safe to travel. For instance, airports are investigating how video intelligence can be used to monitor and perhaps enforce social distancing and mask requirements. They’re also looking at how these technologies can streamline and automate internal processes to boost efficiency. In addition, some airports are fast-tracking facial ID solutions to support touchless security screening for passengers, flight crews and other airport stakeholders.

One compelling benefit associated with video analytics is that these solutions often can be easily repurposed to meet evolving needs. Airports can implement video analytics to support COVID-related health and safety rules now, and later use the same camera feeds, networks and edge computing resources to address new requirements by simply making software changes.

To learn more about how special districts are innovating across the nation, visit: govtech.com/districts