CASE STUDY

A COMPLEX SOLUTION:

HOW VELOCITI AND JFK TERMINAL 4 WORKED TOGETHER TO INCREASE EFFICIENCIES AND SECURITY

WHAT DO YOU GET when you mix an airport, foot traffic from 70,000 passengers and a complex technology installation? For Velociti and the team at the John F. Kennedy International Airport Terminal 4, LLC (JFKIAT), the result was a successful project, 134 cameras with analytics capabilities, increased wireless access points and a more efficient Terminal 4.

JFKIAT, also known as JFK International Airport Terminal 4, LLC, is the largest terminal in the JFK International Airport, serving more than 21 million passengers across its 34 airlines in a typical year. In the summer of 2019, JFKIAT partnered with Velociti to install a system of analytics-capable cameras and wireless access points in an effort to increase security and passenger flow efficiencies throughout the terminal.

21 MILLION
PASSENGERS A YEAR

41,000
FLIGHTS A YEAR

70,000
PASSENGERS A DAY

8.4 MILLION
BAGS CHECKED ANNUALLY

34
AIRLINES

2 MILLION
SQUARE FEET

AN INSTALLATION
UNLIKE ANY OTHER

At first glance, camera installation seems like a simple job, but JFKIAT knew its unique architecture, expansive area and need for continuous operations required a partner with expertise in designing and deploying technology systems. That's where Velociti came in.

JFK Terminal 4 spans two million square feet, so when Velociti was asked to help install cameras, the project team knew it would be no small feat. Some key challenges Velociti had to overcome included:

> **"Working in an airport environment requires every team member to be overly communicative,"** said Jeremy Wilmes, Systems Engineer at Velociti and lead on the JFKIAT installation. **"There are a number of logistics to consider and you have to be focused to ensure safety and security are paramount."**

> **UNIQUE ARCHITECTURE** JFKIAT's artistic, one-of-a-kind architecture had to be taken into consideration and dealt with carefully. Camera placement had to be exact and the ceiling's custom design made it more difficult to take apart. This ultimately made camera installations more challenging.

> **COORDINATING BETWEEN NUMEROUS ENTITIES** JFK Terminal 4 is owned by the Port Authority of New York and New Jersey (PANYNJ), protected by the Transportation Security Administration (TSA) and public safety, and operated by the staff at JFKIAT. This meant communication about installation had to go through each entity prior to any work being completed.

> **CONTINUED OPERATIONS** With hundreds of flights every day, JFKIAT had to remain open throughout the entire installation. This required the project schedule to be adjusted weekly, which then had to be sent to all departments involved for approval and to determine the best timing for ticket counter closures, TSA lane closures and curb closures.

> **SECURITY** Airport security was at the forefront of every decision made throughout the project. All TSA regulations had to be followed by every member of the team and there were no exceptions to the security measures.

VELOCITI

A FLEXIBLE PROCESS FIT FOR
JFK TERMINAL 4

Velociti was involved in the process from the beginning, creating all of the computer-aided design (CAD) drawings and determining all of the intermediate distribution frame (IDF) placements, which was crucial to the quick and effective installation of each technology. The team also led the approval process, getting sign off from each required entity – PANYNJ, TSA, local authorities and JFKIAT personnel.

With help from the team at JFK International Airport Terminal 4, LLC, Velociti designed and deployed a system of cameras and wireless access points across a few key areas, keeping passenger experience and security top of mind. The cameras installed throughout the terminal have basic CCTV capabilities as well as advanced analytics capabilities, allowing the team at JFKIAT to better forecast, track and plan for passenger flow. Each camera feed also returns to a central location where TSA security and other JFKIAT personnel can monitor and control them in an effort to provide enhanced security throughout the terminal.

While the project team tried to work during slower times in the terminal, thunderstorms, snowstorms and other various delays still got in the way. The unpredictable and ever-changing nature of working in an airport proved to be a learning curve for everyone involved.

"It is worth noting that [Velociti's] experience and willingness to try unconventional methods and utilize the newest equipment out there lead them to being able to successfully complete this job when others failed," said Ron Siddons, Manager of Digital Platforms at JFKIAT.

A NEW PURPOSE AMID A PANDEMIC

When the COVID-19 Pandemic hit, New York City was an early hot spot for cases. JFK Terminal 4, along with every other airport in the world saw a large decrease in passengers, as travel was strongly discouraged. With fewer passengers, the need for the cameras to streamline passenger flow decreased. However, these cameras had a number of analytics that authorities at JFKIAT knew could be useful in keeping passengers safe. Rather than monitoring passenger flow through JFK Terminal 4, the cameras took on a new purpose: Ensuring passenger adherence to social distancing. Early on, the Centers for Disease Control (CDC) released guidance for social distancing in an effort to mitigate the spread of COVID-19. The cameras are able to monitor passengers as they make their way through the terminal, making it easier to adhere to CDC guidelines.

A STEP TOWARDS THE FUTURE

Through accurate documentation, clearly defined milestones and a focused and flexible project team, Velociti and JFKIAT were able to complete the project in three months. At its completion, 136 cameras throughout JFK Terminal 4, 11 curbside cameras and additional access points throughout ticketing had been installed and were ready for use.

"Throughout the process, we learned that defined deliverables and project management were key to success for a project of this magnitude," said Siddons.

In the months following the installation, JFK International Airport Terminal 4, LLC has seen improved passenger flow through the terminal and better analytics. TSA also has adopted using the system for staff planning, lane closures and more. While the pandemic has slowed the progress of future plans, the team at JFKIAT is looking forward to continuing to optimize passenger flow and security through the use of the camera system. As part of a $13 billion initiative signed by Governor Andrew Cuomo, the entire JFK airport is looking to the future, planning a number of upgrades along the way. This 21st century transformation is likely to bring even more change and further projects to JFKIAT.

"The Velociti team really impressed us with their capabilities," said Siddons. "Finding ways to deliver to locations several other contractors found 'impossible' really set them apart. The expediency with which they delivered was also a plus and why we would consider them for any large-scale cabling projects in the future."

For more information on Velociti, its facility technology capabilities and more, visit **velociti.com**.