CASE STUDY

Xovis Helps DFW Improve Immigration Hall Flows

Dallas/ Fort Worth International Airport (DFW) wanted to ease customer concerns about missing connecting flights because of waiting times at a complex two-step immigration process. The airport turned to Xovis to implement a robust sensor network that could help reduce queuing time by providing valuable data from multiple passenger streams rearranging across points of the arrival process.

DFW
DALLAS
FORT WORTH
INTERNATIONAL
AIRPORT

Client	Application	Added Value	
Dallas / Forth Worth International Airport	Tracking Passenger Behavior and Wait Times		

Intro

Building on the success of pilot operations at a DFW domestic security checkpoint, Xovis was able to resolve sensitive issues concerning jurisdiction, privacy, and complex passenger flows to the satisfaction of both DFW and the US Customs and Border Protection (CBP) — not to mention the thousands of daily passengers no longer subjected to the stress of guessing on waiting times. The project, the second installation of any such passenger flow system in any US CBP Hall, demonstrates why Xovis remains unrivaled in delivering solutions that optimize staff and spatial resources by robustly tracking different flows in compact spaces.

Challenge

The CBP immigration hall at DFW is designed to receive eight separate passenger streams, almost all of which must undergo a two-step immigration review before moving on to customs clearance. The main issues:

- How can the system accurately track passenger flows that split and re-emerge at different checkpoints?

- How to streamline passenger flows through typically congested areas such as immigration?

The sheer complexity of passenger flows at DFW, where an elaborate eight-way system within a long, nearly discontinuous, and variably unstructured queueing space, meant that waiting times at border control risked severely damaging passenger satisfaction. The question of what data collected by the system and who would have access to it also required elaboration.

Solution

DFW adopted Xovis' People Flow Management System at 15 security checkpoints after better understanding how the vendor's web-accessible live dashboard, playback function, alerting, and reporting capabilities could help optimize passenger flows at international arrivals — providing a smooth introduction to the airport and the city. Xovis implemented a dynamic and adaptive sensor network that allowed DFW to accurately track various passenger sub-groups as they group and ungroup across the multiple steps of the immigration process, the first such network to be installed in a CBP hall. The airport decided after Xovis demonstrated how its customizable installations, powered by purpose-built sensors, could be adjusted to specifically black-out CBP booths, an additional layer of privacy on top of the standard anonymization in the People Flow Management System. DFW also appreciated the utility of a dashboard that could be expanded to provide approved users with a single access point for multiple points at the same time. DFW selected the Xovis system because it:

- Is the only solution capable of detecting queues automatically in an unstructured environment

- Provides passengers with real-time queuing estimates

- Creates a single access point for multiple tools for approved parties

- Is the only system on the market approved by CBP for use in US immigration halls

Benefits

The integrated sensor-powered Passenger Flow Management System will enable DFW to improve the overall customer experience by:

- Allowing DFW to fully track passenger behavior through various checkpoints

- Optimizing resources by determining different processing times for each passenger sub-group

- Protecting the privacy of CBP agents and their operations

- Maximizing infrastructure use by adjusting staff planning and scheduling at a granular level

- Ensuring sensitive information remains in the domain of authorized individuals or groups

The solution implemented at DFW is market proof of how Xovis' sensors can be stitched together to fully capture details of passenger movements through a two-step immigration process. This precedent bolsters DFW's reputation for passenger experience-driven innovation and creates a model for other complex
entry corridors.
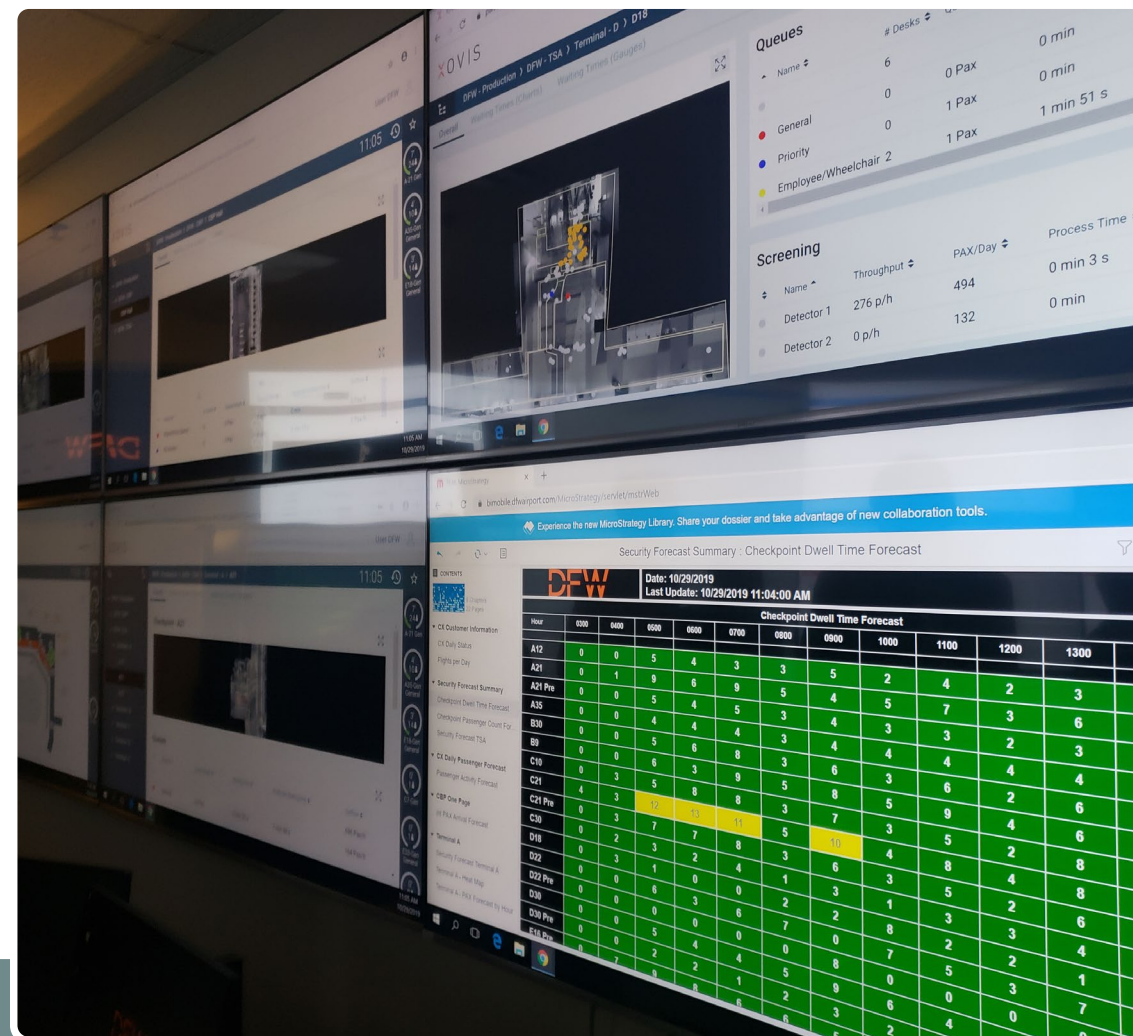
"Xovis technology gives us real-time wait time information at each specific checkpoint, which we'll display at security checkpoints. So passengers can make a decision before they get to the airport as to which checkpoint they want to go through with the least amount of wait time. Innovation is huge in airports and will continue to be."

Ricky Griffin, Jr., DFW Guest Relations Coordinator