



CHECK-IN

A smooth check-in experience helps make a good first impression

HOW AIRPORTS USE XOVIS DATA TO MEET SLA OBLIGATIONS

CHALLENGE

As starting point of the customer journey, a smooth check-in experience is a key determinant of passenger satisfaction. Check-in is a highly dynamic and unstructured area. Various stakeholders (airlines, ground handlers etc.) have a stake in check-in procedures. Typically, they have to meet obligations according to a Service Level Agreement (SLA) and face various challenges such as:

- How to expedite check-in procedures?
- How to gauge performance of queues, lanes, sites and different stakeholders?
- How to improve cooperation of airlines, ground handlers and other parties?
- How to live up to expectations of various stakeholders in a dynamic setup?
- How to optimize the utilization of existing capacities?

SOLUTION

Combining Xovis 3D Sensors and software solutions, the Xovis Passenger Tracking System (PTS) is the only queue measurement system on the market to gauge waiting times accurately in dynamic, unstructured check-in situations. The ceiling-mounted sensors count and track all passengers at check-in area. Based on the data from the sensors, the software calculates KPIs such as:

- Queue length/ waiting time per queue (static/ dynamic automated queue detection, see page 2)
- Process time for queues and/ or single check-in desk
- Passenger outflow rates
- Passenger arrival patterns

BENEFITS

By accurately measuring waiting times for dynamic queues in unstructured check-in situations (per flight/ airline/ sector), the Xovis system paves the way for reducing total cost of operation and streamlining check-in procedures:

- Waiting time-related performance integrated with other KPIs
- Optimized number of open check-in counters
- Optimized opening hours of check-in counters
- Optimized desk allocation
- Reduction of purchased counter hours for airlines
- Optimized staff planning and management for ground handlers
- Comparison of common use set-up and self-service bag drop

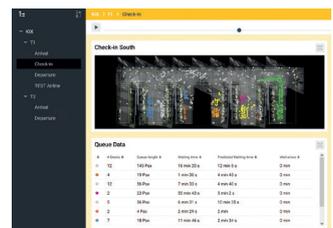
The gathered real-time data is a powerful tool for various stakeholders to monitor the fulfilment of SLAs while increasing the passenger satisfaction.

REFERENCES

ARN	AUH	BMA	CDG	CGN
CPH	DOH	DXB	GOT	HEL
KIX	LGW	MEL	MLA	OOL
ORY	PER	SIN	TFN	VIE
ZRH				



Numerous ceiling-mounted Xovis 3D Sensors can be combined to cover large areas



Xovis' automated queue detection allocates queues dynamically



The broad portfolio of Xovis 3D Sensors meets the architectural requirements of any airport

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How does it work?

Long, slow-moving queues are not only a hassle for airports and train stations, they are also discouraging to passengers. Xovis provides a powerful tool to move passengers more smoothly through facilities, optimize staff and infrastructure planning and ultimately increase customer satisfaction. The combination of Xovis 3D Sensors and software solutions helps improve efficiency across the facility and prepares the ground for innovative business models.

Counting and tracking passengers accurately while at the same time maintaining passenger anonymity, Xovis PTS combines 3D Sensors with software solutions to measure the targeted KPIs in real time. A broad portfolio of Xovis 3D sensors that have a wide angle of view accommodates the specific architectural conditions of any building. Mounted on the ceiling, one sensor covers up to 100 m² or 1100 sq. ft and can be mounted from 2.2 to 30 m or 7.5 to 130 ft high. A high-resolution 3D image, also referred to as a stereo image, of the covered/recorded area is calculated up to thirty times per second. This provides the basis of data for counting and tracking every passenger who enters this area.

Based on the 3D images computed on the sensor, the software receives data streams from all the installed sensors. It then calculates and visualizes KPIs such as waiting times and passenger outflow rates on real-time dashboards. An unlimited number of sensors can be connected in a multisensor to continuously track passengers (without collecting personal passenger data) through large areas. The system also features automated queue detection that measures waiting times for passengers only – excluding staff and meeters and greeters even in dynamic queue areas.

Passengers are recognized as distinct from one another even if they are only 18 cm/7 in away from each other. Again, despite this precision, no personal identifiers are collected. Sample rates of up to 98% are guaranteed, meaning that 98% of passengers in the defined area are registered. The 3D technology does not depend on signal-emitting devices and is very robust. It handles external influences such as fluctuating light and heat conditions without wavering from its task.

Power over Ethernet (PoE), aka combining data and power in one cable, plus a mean time between failures (MTBF) of 25 years, simplify installation/maintenance and keep total cost of ownership low. By implementing field-programmable gate array (FPGA) technology, image processing is performed on the sensor. No video stream leaves the sensors and data privacy is guaranteed. Only a data push of coordinates, representing passengers, is sent out. Only one server is needed to run the system with up to 500 sensors. Xovis PTS can be easily integrated with other software solutions. For example, waiting times can be exported automatically and displayed via screens at specific locations on the operator's premises or on the operator's mobile app.

For more information about Xovis software:
www.xovis.com/pts



ABOUT XOVIS

With more than 130,000 Xovis 3D Sensors in the field, Swiss-based Xovis is the market leader in people flow management in the airport and retail industry. Today more than 300 customers from various industries (airport, retail, transportation and more) count on the combination of Xovis 3D Sensors and software solutions to move people more smoothly through their facilities, optimize their resource planning and increase customer satisfaction as well as revenues. Founded in 2008, Xovis has evolved from a three-person start-up to a dynamic company with over 100 employees. Xovis is headquartered at the gates of Switzerland's capital and has branches in both USA and China.

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