



## Gatwick

Handling over 30 million passengers per year Gatwick Airport is reported to be the busiest single runway airport in the world and the seventh busiest of all airports worldwide. Located just outside London it serves more than 200 destinations from its two Terminals (North and South). With passenger numbers forecasted to increase to around 40 million by 2010/2011, nearly GBP1 billion has been committed to new developments over the next ten years.

Gatwick has been using the CEM AC2000 AE (Airport Edition) system for more than 16 years for its security management solution.

Of the many airports using the CEM AC2000 AE system, Gatwick Airport more than most illustrates the systems comprehensive capabilities, resilience and true flexibility to be tailored to meet client needs. From its initial installation, CEM has worked with Gatwick to develop the system in response to its changing needs and to offer more than simply an access control solution.

Over the years, functionality has been added to the system in response to changing legislation in the aviation industry and as

## CASE SUMMARY

**Location:**

Gatwick Airport, UK

**System:****CEM:**

AC2000 Airport Edition (AE)  
PedMon

the airport expanded. Today, the system provides an integrated business solution that is continuously developed to help Gatwick operate the airport more efficiently.

## £100 million Pier 6 Extension

The most recent development includes an extension of the system to cover the new Pier 6 development.

Gatwick's Pier 6 is a £100 million project that will provide vital extra pier service at the airport's North Terminal. Gatwick reported the project will create a satellite building providing 11 pierserved aircraft stands and includes the largest air passenger bridge crossing an airfield in the world. Standing at 197m long and 32m high, the bridge spans the runway allowing aircraft the size of a Boeing 747-400 to pass underneath, with travelators and walkways in both directions, and a glazed façade giving passengers unique and spectacular views across the airfield.

The CEM AC2000 AE system will be expanded to include an additional 260 CEM S600 card readers to provide access control and monitoring at Pier 6 including control of common use passenger lifts, covering four levels of the Pier including an arrivals level and departures level.

Using special door operation modes available with the S600 reader, lift operation to the Gate Rooms will be linked so that if the Gate Room S600 reader is in Departures Mode the associated lifts will go to Departures Mode, ensuring the lift parks itself at the departures level for use by departing passengers only.

Likewise if the reader status is changed to Arrivals Mode the Reader signals the Lift Controller to Arrivals Mode ensuring the lift parks itself at the Arrivals level for use by arriving passengers.

With the new Pier 6 extension the installed CEM AC2000 AE system will include almost 1000 card readers and almost 80,000 operational cardholders.

## More than access control

The Pier 6 project forms part of Gatwick's Sustainable Development Strategy to manage environmental impacts.

"The CEM AC2000 AE system assists with Gatwick's strategy for energy conservation by allowing us to enable equipment such as Escalators and Heat Curtains only when they are required." said Kim Hayler, Access Control Services Manager at Gatwick. "When the Gate Room reader is enabled for Arrivals Mode, as well as controlling the Lifts, it also enables the Escalator in readiness for arriving passengers. This ensures that when the Gate Room is not in use the escalator is automatically shut down for energy conservation," according to Hayler.

Estimated to accommodate 3.5 million passengers in its first full year of operation, the pier will save 50,000 coach movements, used to transport passengers between the North Terminal and aircraft stand, reducing fuel emissions and ground noise on the airfield.

## Airbridge Control...

As well as controlling and monitoring staff and passenger movement the system at Gatwick also allows for control and monitoring of loading bridges (sometimes referred to as an air jetty). The system has been designed to reduce maintenance costs and control the use of loading bridges. There had been concern that it was difficult to track the use and status of air bridges throughout the airport, with growing maintenance costs due to damage. To address this, the AC2000 AE system was developed to link a loading

bridge to a CEM S600 card reader. Before the bridge can be used, the driver must make a valid swipe on the CEM reader.

Besides controlling who is using the air bridges, the system provides an immense amount of data for reporting. Resulting information includes a list of air bridges, with the number of faults for each bridge, as well as the number of each type of fault over time. The airport knows the hours of operation for each air bridge as well as how long each air bridge has been in maintenance, standby or fault. A list of operators with their number of faults is also provided.

### A transport solution...

Gatwick has used CEM's PedMon (people counting) system to great effect as part of its Intelligent Train Control (ITC) system that controls trains between North and South Terminals. Since its installation in 1996, PedMon has helped in the efficient scheduling of the airport's inter-terminal shuttle service. Using advanced electronic sensors fitted above passageways, the system counts people moving in both directions (in and out) at the same time.

Information is passed through the PedMon sensors to a specially commissioned train control program enabling operators to know exactly how many people are in the transit zones at any time as well as average occupancy levels. Trains are dispatched between the two terminals depending on passenger flow.

When first introduced, Gatwick reported the system had decreased the average mileage of each train between terminals by more than 10% a day.

This not only saves on electricity costs, but also helps reduce wear and tear on the trains. It also enables a more flexible maintenance programme as trains can be

taken out of service if there are no passengers around. CEM also helps control vehicular access at Gatwick using the systems card readers to control and manage access of vehicles and passengers to car parks.