



Integrated building management at O'Hare International Airport

The indoor climate at Chicago's O'Hare International Airport is just right – thanks to the first Desigo CC installation in the United States

At O'Hare International Airport in Chicago, an integrated building management system based on Desigo CC™ ensures optimal visitor comfort – along with maximum energy efficiency.

The project

Serving 70 million passengers a year, Chicago's O'Hare International Airport is one of the busiest airports in the world – and with seven runways and a total of 178 gates one of the largest. It is one of the most important transportation nodes in North America and a main hub for many international airlines. As the Assistant Chief Operating Engineer for the City of Chicago's Department of Aviation, Dominic Henry is responsible for building automation and hence the interaction of heating, ventilation and air conditioning (HVAC), building security and fire safety – no easy task.

The challenge

Travelers at the airport have a lot on their minds: "What is my gate again? Where did I put my passport?" With a passenger volume like that of O'Hare, it is nothing short of a miracle that travelers don't need to ask why it is so hot and sticky. Because it isn't, thanks to intelligent building automation. Terminal 3's complex HVAC infrastructure, a blend of different building automation systems from a variety of manufacturers, needed to be integrated into a uniform system to ensure maximum building comfort and minimal energy costs.



Energy savings without sacrificing comfort

Using the web-based interface of Desigo CC, airport operators can access the required information at any time to optimize the temperature in certain areas of the terminal or determine the cause of a deviation. The patented comparative view of past and present trends helps to improve building performance, saving energy and costs without sacrificing passenger comfort.

The solution

The Desigo CC installation at O'Hare is the first in the U.S. Desigo CC is based on completely new software and serves as the main interface for controlling all building automation tasks and subsystems in Terminal 3. Above all, consistently optimized climate conditions translate into real comfort for passengers – without them being aware of the technology running in the background. The fully integrated Desigo CC ensures not only a consistently optimized room climate, but consistently low energy consumption as well. All the requirements that the building and its operators placed on the new building automation system were met without compromise.

The benefits

One major benefit of Desigo CC is its user-friendliness. Operators have web-based remote access to all data and management functions – anytime, anywhere, and using the identical interface.

For instance, if a store owner at O'Hare International Airport reports a problem, Dominic Henry can access the associated measurement data from anywhere and determine the cause of the problem. It takes him just a few minutes and minimal effort to correct the error. Using the patented Comparative Trend View, he can also compare trends over two different time periods based on the saved data and optimize the building's energy consumption. Desigo CC not only guarantees virtually trouble-free operations, but also dramatically cuts the energy and operating costs of the terminal.

Thanks to the solution based on Desigo CC, the airport operators do not need to worry about the future. They can scale the system as needed and add new features. For example, the fire detection and security systems have already been connected to Desigo CC.

Highlights

- Fully integrated, flexibly scalable building automation
- Maximum comfort for passengers and visitors
- Superior user-friendliness
- High energy efficiency thanks to intelligent data analysis with trend and archive functions