

Centre for Operations Excellence

Improving Efficiency of the Passenger Transportation System at the Vancouver International Airport

Client Profile

www.yvr.com

The Vancouver International Airport (YVR) is the second busiest airport in Canada and serves the majority of its passengers from its Domestic, International, and Transborder terminals. The Vancouver International Airport Authority (YVRAA) is responsible for the management and operation of the airport.



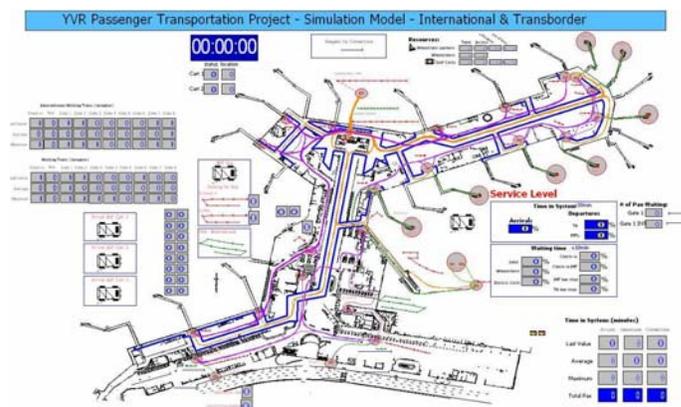
Business Challenge

One of the services available upon request within YVR is transportation assistance for travelers with special needs, such as the elderly and physically handicapped. Passengers may require assistance to or from their flight, general meeting areas in the airport, or a connecting flight. Currently, each airline is independently responsible for the transport of its passengers, and each sets its own definition of acceptable customer service levels. The Centre for Operations Excellence (COE) was asked to investigate if a centralized common-use system that anticipates demand and resource requirements would lead to an overall increase in efficiency and passenger satisfaction. The COE was asked to recommend an operational strategy and resource levels for a centralized system.

Value Delivered

The client received information on system requirements and considerations. The COE team provided the operational strategies, resource levels and expected level of service for each of the terminals. The COE also delivered a queuing modeling tool and a simulation model which could be used for both daily and long-term operational planning. The client gained a deeper understanding of its system passenger transportation system.

The COE Approach



The COE interviewed representatives at many air carriers and observed the processes to establish a detailed process map. The team requested data from various parties and collected information necessary to determine demand percentages and process times. Using Excel and Visual Basics for Application (VBA), an analytical queuing tool was developed that allowed management to analyse operational strategies and resource levels. A simulation was also developed for scenario analysis and future evaluation of potential system changes. Final recommendations on system improvement were given based on the results of rigorous evaluation of scenarios and sensitivity analysis.