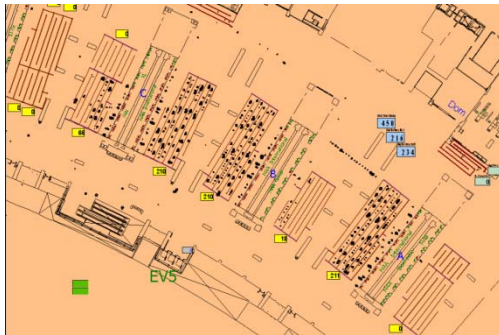
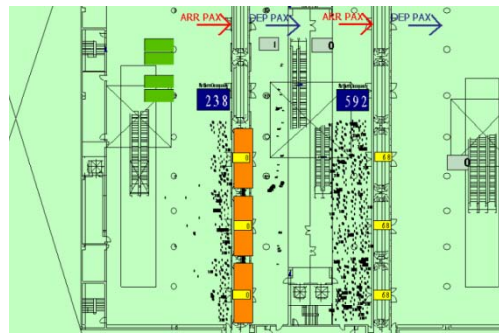




Comprehensive Passenger Terminal Level of Service Analyses



Check-in Hall



Concourse A Intra-Airport Transit (IAT) Platform

Client Name: KIDS, prime contractor to Incheon International Airport Corporation (IIAC)

Date Started: February 2006

Date Completed: December 2006

In 2001, Incheon International Airport (IIA) opened with a single terminal with 44 aircraft gates. The Airport then proceeded with Phase 2 development to accommodate growing passenger demand, constructing a 30-gate satellite terminal Concourse A, and an airport people mover, the Intra Airport Transit (IAT), to connect the terminals. As part of Phase 2, IIAC asked TransSolutions to perform a simulation analysis to ensure facilities would accommodate 2015 demand with 160,000 daily passengers, and to offer improvement recommendations if the terminal did not meet Level of Service (LOS) goals in any area.

TransSolutions worked closely with Keun Jeong, the local architecture firm that planned and designed the Phase 2 concourse, and conducted a comprehensive analysis of passenger facilities in three buildings:

- Transportation Center - including train station, Great Hall, and private vehicle parking garage
- Main Terminal Building (MTB) - including all traditional processes for departing and arriving passengers on multiple levels
- Concourse A

In addition, the analyses detailed the connections between facilities: bridges and tunnels between the Transportation Center and MTB, escalators and elevators between levels, and IAT between MTB and Concourse A.

TransSolutions developed a detailed simulation model of arriving, departing, and transferring passenger flows and facilities using our proprietary *Terminal, Roadway, and Curbside Simulation* (TRACS) model. The TRACS outbound passenger flow model included check-in processing, security screening checkpoint (SSCP) processing, outbound passport control, passenger travel, and vertical transitions to reach departure lounges and aircraft boarding. The in-bound passenger flow model included passenger deplaning, travel and vertical transitions, in-bound passport control, baggage re-claim, in-bound customs, and greeter hall activities.

To evaluate terminal performance, TransSolutions compared passenger queues (waiting times and space requirements) for each processing area with IIA's service goals and IATA LOS standards. Areas not meeting goals were studied further to determine improvements to provide better service. TransSolutions recommended modified elevator usage and passenger flow (to be regulated through signage) and IAT improvements to meet their service goals.

In April 2011, Incheon Airport was again awarded the Best Airport Worldwide at the Airport Service Quality (ASQ) Awards Ceremony held in Delhi – the sixth successive year that the Airport has been named the world's best airport by passengers taking part in ACI's annual customer satisfaction survey.

