

# Digital Airport Solutions



## Creating a Smarter, Greener, Digital and Secure Airport

Technology acts as an enabler to help airports resolve the challenges in operations while enhancing passenger experience which eventually boost non-aeronautical revenue. Digital solutions enable airport operators to improve operational processes and passenger services along with realignment of organization functions.

PCCW Solutions is committed to transforming a legacy airport into an intelligent one through the adoption of digital technologies in the areas of passenger experience, operation efficiency, commercial business, security and sustainability.



# Passenger Experience

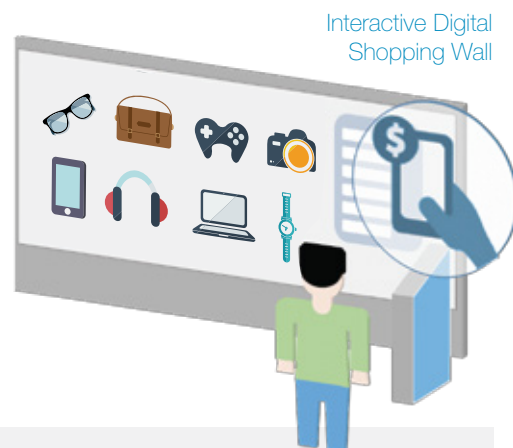
Traveling can be a tedious process, be it planning beforehand or finding the way in an airport. Very little time is left to relax and have an enjoyable experience. "Digital Companion" is a mobile application which consolidates all necessary information and processes for passengers, bringing much convenience to a journey.

## Digital Companion offers a single information platform of a journey



# Commercial Business

Shopping in the airport can be a laborious task, when customers carry shopping bags on top of their carry-on luggage. Digital solutions help deliver hassle-free and enjoyable shopping experience for passengers. Retailers can also leverage Big Data analytics for targeted marketing campaigns and offers planning, hence increase their sales revenue.



## Solutions

### Interactive Digital Shopping Wall

## Features

- Capture passerby attention in more creative ways
- Provide customers with an immersive experience that engages multiple senses
- Minimize floor space

### iBeacon Retail Voucher

- Direct content via apps to the shopper's smartphone while they walk near the store, encouraging them to buy

### Shopping-On-The-Go

- Travelers can enjoy shopping anytime anywhere
- Products delivered to the boarding gate

### Smart Billboard

- Display and configure ads according to flight destinations

### e-Wallet / e-Coupon

- Coupon
- Membership
- Store value payment
- Auto top-up
- Ticketing (movie, concert, airline)

### Analytics

- Capture data in the Digital Companion and video feeds for analytics
- Analyze according to travelers' age group, sex, nationalities, consumption preferences, budgets, travel preferences and behavior
- Identify high footfall areas for best placement of retail shops and digital signage

## Operation Efficiency

Real-time and visualized information and analysis of operations in the airport enables efficient crowd and workforce management.

Video Analytics &  
Traveler Time Optimization



### Solutions

#### Video Analytics & Traveler Time Optimization

- Real-time assess the number of people in queue
- Advise the lane for faster process at security checkpoint

#### Dynamic Workforce Management

- Real-time assess the status of operations e.g. checkpoint counters, baggage hall, etc.
- Allocate workforce and resources in timely manner

#### Paperless Departure and Arrival

- Travelers validate information in the flight on the airline tablet instead of filling forms
- Reduce queuing time bottlenecks upon arrival

### Analytics

- Capture video stream by CCTVs
- Count number of people and determine flow of people by Video Content Analysis (VCA) technology
- Visualize the density and propensity of people in various zones
- Use information as a reference for rent calculation, design layout and placements of facilities and shops

### Features

## Security

Through integration of different security elements, digital safety and security solutions deliver advanced security capabilities, enhance situation awareness and passenger safety, and improve the sharing of security information among stakeholders, creating a safer environment for workers and passengers.



### Solutions

### Features





<b>GPS Tracking System</b>	<ul style="list-style-type: none"> <li>• Monitor the location of staff and vehicles</li> <li>• Assign work order and instruction</li> </ul>
<b>CCTV System</b>	<ul style="list-style-type: none"> <li>• Monitor the status of equipments</li> </ul>
<b>Perimeter Intrusion System</b>	<ul style="list-style-type: none"> <li>• Monitor and detect the form of intrusion</li> </ul>
<b>Access Control System</b>	<ul style="list-style-type: none"> <li>• Restrict and control the access to different sections</li> </ul>
<b>No-show Passenger Locator</b>	<ul style="list-style-type: none"> <li>• “Tag” passengers with Advanced VCA and other sensor data</li> <li>• Locate specific passenger</li> </ul>
<b>Correlation Analysis</b>	<ul style="list-style-type: none"> <li>• Specific target detection</li> <li>• Identification and path tracking</li> <li>• Historical location</li> <li>• Real-time searching</li> <li>• Knowledge-based augmentation</li> </ul>

## Sustainability

Reducing environmental impacts is one of the key considerations for airports. Digital solutions assist airports to achieve energy efficiency by developing control strategies and integrating sustainability practices.

### Objectives

### Solutions

<b>Energy Saving</b>	Active control strategies of lighting through adjusting the light levels based on presence of natural light, occupancy and schedule	 <b>Dimming Scene Controls</b>  <b>Daylighting Controls</b>  <b>Occupancy Controls</b>  <b>Schedule-Based Controls</b>
<b>Centralized System Management</b>	Integrated control of systems in public area, office, building backend, guestroom, parking, exterior area, etc.	
<b>Power System Optimization</b>	Monitor the power systems status via holistic dashboard, detect aging via trend discovery, develop strategies to optimize consumption	

## About PCCW Solutions

PCCW Solutions is a leading IT services company in Hong Kong and mainland China. We adopt the latest technology to help clients create business value and success in the ever-changing economic environment. We offer a wide range of services including digital solutions, IT and business process outsourcing, cloud computing, system development and solutions integration, data centers, hosting and managed services, e-commerce and IoT solutions. PCCW Solutions is committed to meeting customer needs to help them achieve business goals.