Case Study

Adelaide Airport Improves the Management of the Taxi Pick-up Zone to Reduce Operating Costs and Handle a 10% Increase In Taxi Traffic

Adelaide Airport Limited (AAL) is the principal airport for South Australia, it is the fourth largest domestic airport, and sixth largest international airport within Australia. Since the development of the new terminal in 2005, Adelaide Airport has continued to expand, including the introduction of new international airline carriers, growth of passenger numbers and the associated requirement for infrastructure development.

Adelaide Airport handles millions of passengers each year, and with numbers increasing by around 5% each year, the challenge of enabling passengers, and visitors to easily travel to and from the airport is ongoing.

Managing Ground Transport to Ensure a Smooth Customer Journey

The role of the Ground Transport team at AAL is to manage the passenger experience relating to all ground transport modes as they arrive at and depart from the airport. This incorporates the management of car park capacity, road networks to manage traffic flow, plus the location and management of external services such as taxis and limousines. With a continual increase in passenger numbers, solutions need to be scalable to support future growth.

Dennis Killeen, Ground Transport Manager, AAL, comments "With the continual growth in passenger numbers, it is vital that we continue to expand the supporting infrastructure, including car park capacity, layout of the road networks, and access to additional services such as taxis and limousines. For any improvement that we make, it is essential that we look ahead and that our plans are able to scale for an even further increase in passenger numbers."

With 19%1 of passengers traveling by taxi, this is one area that can have a large impact on the traffic flow around the airport and the ease at which passengers can travel to and from the airport.

Dennis Killeen continues, "A large proportion of our customers travel via taxi; therefore, it is important that we make sure we can handle these services in an efficient manner. We manage the taxi traffic by creating a holding area before they pass through for passenger pick-up. This helps to maintain a continual flow of taxi availability and reduces congestion on our roads. However, we were using a manual process, and we needed to drive efficiency to make this less of a resource burden on AAL staff."

For a long time, taxis have been managed by providing a holding area where taxis would wait to go into the passenger pick-up zone. This enabled taxis to be filtered through the pick-up zone, managing an effective queue and making sure that passengers could easily be picked up and travel from the airport via taxi.

> "The holding zone works well to manage taxi traffic flow, but unfortunately, we would sometimes have problems with the process for collecting payment. This caused a chain reaction of issues, including traffic congestion and unhappy passengers that were waiting too long to be able to get a taxi. Eventually, we had to put a person in place to interact with the machine, turning an automated process into a manual one. We needed to find another solution."
>
> **Dennis Killeen**

Taxis pay a nominal fee in order to pass through the holding zone and on to passenger pick-up. The collection of the fee was a relatively manual process and at times was open to errors. A machine was in place to collect payment and issue tickets, however due to a range of issues, including impact from adverse weather conditions or user error, there were sometimes problems with the process. This would result in taxis not being able to pass through the zone, creating a backlog of taxis, causing congestion along roads, and passengers waiting longer than necessary for taxis.

Selecting a Solution to Support Future Growth

In 2012 AAL started to look for a solution that would help to improve the flow of taxi traffic. The required solution needed to be able to integrate with the existing access control equipment, remove the manual burden from AAL and make it easy for taxi drivers to pay the nominal fee in order to pass through the holding zone to passenger pick-up.

TNS was selected as the service provider, working with the access control system to deliver a fully automated solution.

The Adelaide Airport taxi system consists of two areas—the initial holding area and the passenger pick-up area. The entry to and exit from both areas are controlled by the parking access equipment. Access to these areas is controlled by a proximity tag which is also linked to the TNS GroundTransport system. On approach to the holding area, the tag is read, and TNS GroundTransport determines whether the driver's account has sufficient funds. If yes, a green light signals that the taxi may join the waiting taxi queue. If there are insufficient funds, then a red light advises the driver that his account needs attention.

As demand at the pick-up area requires, taxis are released through the holding exit and proceed to the pick-up entry. Taxis that have not been through the holding area in the previous 10 minutes are not allowed access to the pick-up area. This is to ensure that account balances have been verified and to prevent taxis from jumping the queue.

After picking up their passengers, the taxi approaches the pick-up exit where the tag is read again, and the nominal fee is deducted from their account balance.

To make the payment process easy for the taxi driver, each individual can top up using the web based online portal using either their smartphone or a computer, have their balance top up automatically, or top up directly via the Taxi Council of SA. This enables taxi drivers to pay using a method that suits them best There is also a Top-up Kiosk located in the taxi facility building adjacent to the taxi holding area.

In addition, the solution provides a comprehensive administration tool, allowing the South Australian Taxi Council to register new taxi drivers onto the system and manage any expired accounts. AAL is able to use the management reporting tool to monitor transactions processed and taxi traffic flow through the airport.

Through the use of the new automated solution, AAL has been able to effectively manage a 10% increase in the flow of taxi traffic without causing a disruption to other traffic around the airport or passenger experience.

> "The introduction of the TNS GroundTransport solution has enabled us to not only streamline the taxi passenger pick-up service but successfully handle the increase in taxi traffic which has occurred to support the growth in passenger numbers. The management reporting available enables us to not only measure transactions but to also monitor taxi traffic flow and volumes, which assists us with future planning. With the automated service, we have reduced the manual burden and associated operating costs, but more importantly, it enables us to focus on other areas of business—continuing to improve traffic flow around the airport."
>
> **Dennis Killeen**

Continue to Plan for Future Developments

Due to the consistent growth of passenger numbers at AAL, the airport must continually plan ahead.

Following the introduction of the TNS GroundTransport solution, AAL has worked with TNS to deliver an online car park reservation system.

"We already have the TNS UnattendedPayments Solution, a credit card payment system in our car parks, but we wanted to improve the parking experience even further and offer a reservation service for customers. After completing a full review of the market and evaluation of other operators, we selected the TNS AltitudeReservation solution. TNS was selected due to its technical capabilities, and as we've always received exceptional service from TNS, we were confident this solution would meet our requirements," Dennis Killeen comments.

The TNS AltitudeReservation solution enables passengers to book and pay for their car park space in advance. Providing an easier parking experience at the airport and assisting AAL Ground Transport to manage car park capacity more effectively.

Dennis Killeen continues, “In addition to offering a service to those customers who want the reassurance of booking their parking in advance, the TNS AltitudeReservation solution also helps us to manage parking capacity more effectively. This benefits all passengers and visitors to the airport, making sure we have enough capacity for people that haven’t booked parking in advance and by improving the flow of traffic around the airport.”

For longer-term projects, the AAL team is currently working on the Adelaide Airport Limited Master Plan, looking at required developments for the next 20 years. Working alongside Airside teams and State Government, AAL has to make sure the airport and surrounding infrastructure will be equipped to manage future passenger demand.

Dennis Killeen explains, “We have to continually plan ahead as the airport and passenger demand is always changing. We release a new Master Plan every five years, but we need to plan for at least 20 years in advance, planning to make sure infrastructure will be in place to suit future demand. We see solutions such as those provided by TNS integral to our developments, helping us to automate previously manual processes and to improve the customer’s experience at the airport.”

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