Case Study

Location: Sydney, Australia **Product: Acom**

Acom Takes Off At Sydney Airport

SACL Upgrades for the New Millennium in Airport Communications

Sydney Airport is Australia's major hub for domestic and international air traffic, as well as being the country's busiest airport, handling over 28 million passengers per year. Airline industry surveys consistently rate Sydney Airport as excellent and in the 2005 Skytrax Airport of the Year Award, Sydney was ranked among the top ten airports in the world.

The three main terminals, T1 International, T2 Multi-User Domestic, and T3 Qantas Domestic handle a total of 66 aircraft and over 17,000 passengers per hour. A typical day at SydneyAirport sees around 77,000 passengers travelling through the international and domestic terminals. Forty international carriers operate scheduled services to Australia through the T1 International Terminal with total passenger throughput of 7,000 per hour.

SACL (the Sydney Airport Corporation Limited) operates the Kingsford Smith Airport Facility. SACL is responsible for all aspects of airport management including the buildings, businesses, apron, security, facilities, maintenance, car parks,check-in counters, baggage systems, and much more. The main function of SACL's communi- cations centre is to coordinate between aircraft, carriers, apron staff, airport staff, and security.

In 2005, SACL decided to replace and upgrade its aging communication system and invited Zetron to bid on the project. Because of the unique environment of a busy international airport, SACL required a communications system that was flexible, expandable, and that also satisfied some key, mission specific requirements:

- Robust, highly-resilient system
- Flexible, user-friendly equipment that could be custom configured to user-needs
- Technology based on an "open system architecture" to ensure compatibility with a wide variety of communications equipment and network components
- Integrated radio and telephone—a major requirement since SACL relies upon both modes of communication on a day-to-day basis for the running of the airport
- Expandability—a system that could be reconfigured and expanded as needs change

Integrated communications:

Zetron had the perfect solution to all these requirements in its Acom Advanced Communi-cations System using the company's DS3 communications backbone. In August of 2005, Zetron installed and commissioned a 10 position Acom console system for SACL.

The Acom consoles provide SACL's Terminal Controllers access to ground radio, air-to-ground radio, ATC (Air Traffic Control) radio monitoring, as well as SACL's corporate PABX telephone system. The Acom screens allow controllers to customise their screens to meet the communications needs of running a modern airport.

Other benefits of Acom technology include:

- Multi-site resilient architecture to provide system redundancy
- Integration of telephone/radio decreases desktop and backroom hardware, reducing clutter and freeing up valuable space
- "Hot Desking" functionality that allows operators to sign on and access his/her user profiles from any console position
- Protects investment by allowing use of legacy equipment
- Remote diagnostic support—via VPN
- Expandability—Acom supports up to 90 positions, allowing for future growth

SACL have a single system spread in a resilient distributed configuration across three sites. They have six operator positions in T1, three positions in T2, and one position in the Emergency Operations Centre. These 10 operators access external circuits connected at the T1 and T2 locations; these are 18 radio bases, 24 PABX circuits, and 12 Direct Hotline Circuits. In addition, the ACOM system connects to two digital recorders via digital trunks in order to store audio from the operators and lines on to digital media.

SACL continues to invest in airport infrastructure through acquisition and upgrades to property, equipment, and facilities. SACL has a wide range of experience in the operation of airports and works with many businesses associated with the aviation industry to achieve outcomes for both SACL and other businesses.

Acom is a modular and configurable communications system for integrated dispatch communications centres. Scalable from a few operators up to 90 positions, Acom is designed to be connected to a diverse mix of communications equipment ranging from PABXs and the PSTN, radio bases and radio networks, public address systems, and bespoke equipment. Zetron console equipment supports all industry standards and more protocols than any other manufacturer.

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