



Flying High Darwin International Airport

DIA chooses ADC KRONE TrueNet® CopperTen™ RJ45 solution for its reliability, high network speeds and ease of management.

CASE STUDY

CHALLENGE

Darwin International Airport recently decided to refurbish its management centre, including upgrading from the older, slower Category 5 to the new Category 6_A cabling. DIA also wanted a solution they could manage themselves. Due to the timing-sensitive nature of airport operations, the installation had to be planned and executed carefully to ensure no IT downtime.

STRATEGY

DIA chose ADC KRONE's TrueNet CopperTen RJ45 system to provide a high performance, robust and reliable communications infrastructure.

RESULTS

DIA achieved positive results immediately and now has a high performing communications network that won't require further upgrade in the near future. The ADC KRONE solution is as high performing, robust and reliable as expected and provides headroom for future applications.



CUSTOMER PROFILE

DARWIN INTERNATIONAL AIRPORT

- Darwin International Airport (DIA) is Australia's northern gateway to Asia, operating 24 hours a day.
- It is centrally located within 4.5 hours' flying time from each of Australia's capital cities as well as international destinations such as Indonesia, Singapore, Malaysia, Papua New Guinea and the Philippines.
- DIA is a joint user airport, sharing its ground area with the Royal Australian Air Force (RAAF).
- The RAAF owns and occupies a major military base on one side of the airport. It also owns and maintains the joint user areas, which include the runways and taxiways.
- DIA can accommodate the largest aircraft in operation, including the Airbus A380.
- 23 general aviation, two helicopter and one cargo operator have facilities on the airport.

A unifying upgrade

As a major tourist hub as well as the jumping off point for Australia's defence forces, Darwin International Airport (DIA) relies on IT to keep people moving. It is therefore essential that the Airport's communications infrastructure is as strong, reliable and capable as possible. To that end, the Airport's IT team recently decided to completely overhaul the existing management centre including refurbishing it and upgrading the network infrastructure.

Although based on the de facto industry standard ADC KRONE cabling for the past decade, DIA's management centre had become an ad hoc system incorporating various piecemeal upgrades over the past 10 years. The new project aimed to: unify the network; increase network speed and reliability; simplify network management; and

ultimately save costs by making it easy for DIA staff to manage the network internally.

Having worked closely with Darwin Data Cablers (DDC) for many years, DIA entrusted them with managing the project. DDC worked closely with DIA to come up with a solution that would be not only cost effective, but also the best and most reliable solution available. DDC Director Warren Forgan explains:

"DDC is the nominated cabler by the airlines, Airport management and other government and private users, so we were already very familiar with DIA's networking environment and requirements," he says. "We knew that ADC KRONE had been the cabling standard to date, so we knew it was reliable. It was a simple matter of choosing the right ADC KRONE solution for this particular project."

"The main problems with the existing infrastructure were that the old Category 5 cabling was no longer fast enough for DIA's requirements, and there were a few vermin problems," says Warren Forgan. "It's inevitable in a network of this age and size that you will eventually need to upgrade to increase network speed and throughput."

High expectations no problem for ADC KRONE TrueNet® solution

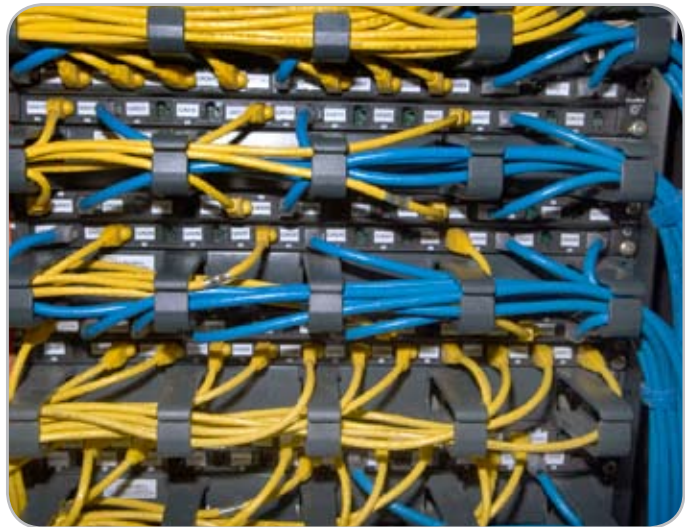
From the outset of the project, it was clearly understood that DDC would be expected to upgrade DIA's network infrastructure in a comprehensive, cohesive and easy to manage way.



Additionally, DDC would need to work around the Airport's requirements for network availability. Even a very short period of downtime could have catastrophic effects on passengers around Australia, with flight delays cascading down to other airports.

To satisfy DIA's stringent requirements for network strength, capability and reliability, DDC recommended ADC KRONE's TrueNet® CopperTen™ RJ45 solution. The world's first unshielded twisted pair (UTP) structured cabling system with the necessary characteristics to enable 10Gigabit Ethernet transmission over a full 100 metres, the CopperTen system minimises alien crosstalk and insertion loss. It delivers an easier to install and more cost effective solution than shielded and fibre optic cabling systems, making it perfect for DIA's needs.

The RJ45 structured cabling solution consists of Category 6_A component compliant patch panels,



and wall outlets and patch cords. It maximises data throughput, providing headroom for all future technologies operating beyond one Gigabit. This was important to DIA, as it would reduce the need for future upgrades.

In addition, DDC implemented Category 6_A (Aug-mented) cables. Cat 6_A cables operate at 500MHz, as opposed to regular Cat 6 cables, which operate at up to 250MHz. Cat 6_A cable was the ideal choice for DIA because it provides up to 10Gigabits bandwidth, making it the best choice for future-proofing the network.

Working closely together ensures smooth installation

Timing was a key consideration in installing the new ADC KRONE TrueNet CopperTen RJ45 solution. DDC was well aware of how crucial precise timing would be to the project, and had the advantage of working with the airport in the past.

"We worked closely with DIA management and the builders that were working on the management centre refurbishment. Together we planned out the installation very carefully, so we knew exactly where we needed to be at any time," says Warren Forgan. "Doing the planning work in advance meant that we had a smooth installation process with no IT downtime."



Stuart Ainsley (Airport Engineer) and Tom Ganley (Finance Manager)

CASE STUDY





Left to Right: Sven Klasen and Tom Ganley (Darwin International Airport) and Warren and Lisa Forgan (Darwin Data Cablers)

CASE STUDY

Immediate results

Once the new active hardware was married to the cabling system, the results were immediate. The faster speeds achieved by the ADC KRONE Cat 6_A cabling has meant that DIA could implement new applications such as video conferencing.

“The ADC KRONE has proved to be a real value-add solution. Being able to manage it themselves has saved DIA significantly in terms of costs. The system is incredibly easy to use and completely reliable,” says Warren Forgan.

DIA has been equally pleased with the outcome and plans to continue upgrading throughout the rest of the airport with ADC KRONE solutions. In particular, the next phase of the project will

involve providing Cat 6_A cable to all new office and passenger check-in counters.

“The Airport now has a cabling solution that will easily last for the next 10 to 15 years. They have plenty of headroom to introduce new bandwidth-hungry applications and are saving costs by managing the solution themselves. All in all, it has been an ideal outcome,” concludes Warren Forgan.



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