

# SURVIVING CYCLONE LAM

Orchestrating a brighter world



In a state of emergency, the last thing police and health workers need, is to be crippled by broken computer networks.

Cyclone Lam's 230kph gusts caused freak weather conditions and threatened to cause chaos for all emergency communications to aid assistance to remote towns off Darwin.

Galiwinku, Ramingining and Milingimbi bore the brunt of the cyclone. At Galiwinku on Elcho Island, where Lam ripped trees clean from their roots, the initial sense of wonder that no one died is giving way to despair as locals comes to terms with the damage to homes and infrastructure it caused.

However, the response by police and health workers in the immediate aftermath could have been severely hampered if it weren't for a contingency plan by the Northern Territory Government and NEC Australia to save critical computer networks that would likely be destroyed by Lam, if not by its ferocious winds then rising waters it threatened to bring.

As the category four cyclone drew nearer to the Arnhem Land coastline, preparations were already underway at NEC Australia's Darwin headquarters to restore police and healthcare service computer networks in the cyclone's path.

The IT services company is responsible for maintaining computer and network at all NT Government agency sites. In some locations, such as Milingimbi, the local police and the health clinic rely on the IT infrastructure within the local school for network connectivity.

Lam surprisingly left Milingimbi school's computer equipment room intact but water damaged the router, switches, server and network storage appliances — equipment that would be vital for police and health workers to assist people affected. Together with the aid of planes at Vertical Technology Group (VTG), NEC technicians on Sunday flew in from Darwin to replace the equipment.

Cyclone Lam however presented logistical challenges as it shifted westerly, from the Gulf of Carpentaria to eastern Arnhem Land. By Tuesday 17 February, weather forecasts indicated Lam would strike Nhulunbuy in Northeast Arnhem Land. NEC had prepared for every contingency and had pre-emptively taken enough equipment on its flight to completely replicate the regions ICT Infrastructure, if required.

As a result of rainfall in Katherine river catchments, Cyclone Lam had another area in its sights, on mainland; well over 400kms away, as crow flies. . Before flood threats had been announced by the Bureau of Meteorology (BoM) the company prepared enough spare equipment in the township for emergency services personnel, only for the cyclone to shift course towards Elcho Island and Milingimbi Island.

Lam knocked out Galiwinku's main power supply, causing outages for the rest of Elcho Island, including the station where Galiwinku's police are located. A backup generator sputtered to life but to little effect for the police computer network, which was served from another building hit by the power outage. Galiwinku's police lost all communications until Saturday when telecommunications services were restored however its local network remained down since the main power supply hadn't be restored.

Given the circumstances Galiwinku's police faced, on Sunday morning, a small crew from NEC Australia's Darwin operations boarded a flight to Elcho Island with the goal of ensuring it had a functioning network. With power supplies yet to be restored, the crew brought additional equipment to establish a dedicated temporary network connection for the Police until it had working services.

As it turned out, the extra equipment wasn't necessary as power was reactivated by the time the flight landed at midday on Sunday. Nonetheless, it gave the crew an opportunity to wrap up its contingency plan for Lam and confirm with local site administrators that equipment was in a state to support the community's recovery.

This experience has shown that in the face of adversity, NEC has the local knowledge, contacts and understanding required to pre-emptively prepare for the aftermath of a disaster, before disaster has struck. No ICT downtime was experienced by the Northern Territory Government, outside of power outages plaguing the regions.