

NEC Case Study - IP Telephony Solutions: Public Utility

NEC Wins Snowy Mountains Scheme Voice Contract With Safety-Conscious Hybrid Telephony System.

NEC Business Solutions (NECBS) has won a major contract to replace the entire voice environment of one of the most complex water and electricity utilities in the world – the Snowy Mountains Scheme – with a ‘safety-conscious’ hybrid telephony system.

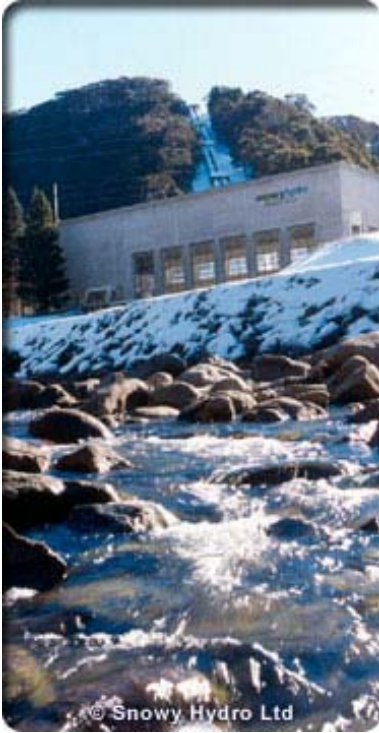
The NEC Business Solutions hybrid solution incorporates two clear networks, providing both IP and traditional telephony support, ensuring the maintenance of the Scheme’s leadership in occupational health and safety (OH&S) standards.

Operated by Snowy Hydro Limited and located in Australia’s Southern Alps, the Scheme consists of seven power stations - two of which are underground – 16 major dams, 80 kilometres of aqueducts, 145 kilometres of interconnected tunnels and a pumping station.

When completed, the new NEC voice architecture will deliver significant savings on carrier costs, provide easy scalability of the IP voice environment, and support greater mobility and flexibility for Snowy Hydro’s 400 employees.

Snowy Hydro Communications Manager Rob Evans, said the company had outgrown its aging telephony infrastructure and needed to upgrade to a scalable solution offering innovative telephony features and a transitional path to IP.

“This was a very close tender but NEC had a decided advantage when the total cost of ownership was considered,” said Evans.



NEC's recent release of the UNIVERGE™ voice switches, combined with their IP-enabled hybrid switches, ensures Snowy Hydro has state-of-the-art desktop phone services integrated with IT applications - such as unified messaging - as well as conventional OH&S analogue phones, and all without compromising reliability, safety and system security.

“As well as supporting our OH&S requirements, the new system will provide greater efficiencies and savings for the business—we need a reliable voice system to complement our “

infrastructure.” As a major power utility, Snowy Hydro operates at the highest standards of occupational health and safety and is currently migrating its safety systems to the Australian Standard 4801. A requirement of Snowy Hydro's internal “Clean, Green and Safe” policy is to have telephones at regular distances throughout all sites, many of which are located in high electrical interference environments, in order to facilitate backup in an emergency situation. As a result, there are around three times the number of OH&S analogue phones to desk-based phones. The new system has been designed to continue to reliably support the required analogue OH&S phones while adding the advantages of IP voice service delivery to desktop users.

According to NEC's ACT Branch Manager Mark Newman, the key to the NEC solution was a sophisticated telephony loop which facilitates switching between the analogue handsets and an IP-enabled network.

“The hybrid system supports the dedicated analogue safety phones situated around the underground generation and above ground pumping stations as well as providing a transitional path to IP,” said Newman.

“The solution will also provide increased mobility and flexibility for a workforce located over a large geographic area and in several sites. This allows an individual's telephone extensions to

follow them as they move from one site to another.

In all, 15 new NEC systems make up the new communications platform. NEC Business Solutions will also deploy two UNIVERGE SV7000 systems in a disaster recovery layer, designed to come into operation only if the main site in Cooma fails. All sites are provided with redundant Time Division Multiplexing (TDM) links to another PSTN gateway, ensuring that even in the event of a complete data network failure, all analogue phones will continue to support internal and outgoing calls.



About Snowy Hydro

The Snowy Mountains Scheme is an integrated water and hydro-electric power utility located in Australia's southern alps, operated and maintained by Snowy Hydro Limited. The Scheme provides water for irrigation and generates clean, renewable energy.

Snowy Hydro operates over six regions and includes an infrastructure of seven power stations, sixteen major dams and over 220 kilometres of tunnels, pipelines and aqueducts. The water released to the west underwrites over \$3 billion in agricultural produce each year, and the energy produced amounts to over 70 percent of all the renewable energy available on the eastern mainland grid. <http://www.hydro.com.au>

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