

United Group – EastLink Mitcham to Frankston Freeway

Design, develop and supply Help Phone and Fire Phone systems for tunnel and motorway



Project

EastLink Help Phone & Fire Phone Systems

Client

United Group Limited

Location

Melbourne, Victoria, Australia

Contract Period

8 months

Award Date

November 2006

Project Overview

The EastLink Project comprises a 42km motorway, having three (3) through traffic lanes in each direction between the Eastern Freeway and Thompson Road reducing to two (2) through traffic lanes in each direction from Thompson Road to Frankston Freeway Interchange. Incorporated into the freeway system is a tunnel comprising twin bore parallel tubes of approximately 1.6km in length each bore having 3 lanes, running from East of Park Road to the West of Deep Creek Road, passing underneath the Mullum Mullum Creek. Open Access were commissioned by United Group to supply the Help Phone and Fire Phone systems for the freeway.

The Solution

The NetSpire Help Phone System comprises over 170 roadside handsfree Help Points meeting a variety of mounting requirements – including recess tunnel wall mount, free standing frangible pedestal mount and barrier mounted. Controlled in the field by NetSpire system remote node devices called Station Gateway Units (SGU), the Help Points use a touch sensitive button for call initiation.

Centralised operators can review system status, manage calls, and initiate calls to Help Points via graphical consoles and VoIP desk phones. All system call routing and control is managed by two fault tolerant Communications Exchange Servers.

The NetSpire Fire Phone System comprises 31 phones located in fire cabinets throughout the tunnels and is intended to aid the communication within the tunnels of authorised personnel. Each phone can call and conference with any other phone within the system including the centralised operators VoIP phones. The system is designed using two VoIP Gateways for call control and “crossover” system architecture is used to provide maximum system redundancy.

The Result

The system design which uses analog tails from the Help Points to the SGUs and then VoIP communication throughout the remainder of the system, provides a cost-effective solution which still incorporates many of the benefits offered by fully VoIP enabled systems.