November 2020

THE TELIT

The TITAB Cabling Newsletter

TITAB AUSTRALIA

Highlights

Editorial

During the bush fire emergency earlier this year we wrote in the May TELIT on the important role of telecommunications in disasters and the need for a secure, accessible network. Some of our cablers were affected both directly and indirectly and we offered to help them within our capabilities.

As the COVID 19 pandemic has spread throughout the world and Australia, it has become apparent that there is a need for an upgraded, reliable and accessible network as a consequence of more staff working from home.

Managements who resisted home working in the past, have realised that with modern telecommunications it is possible for larger numbers to work from home and in many instances, more productively. Even when COVID 19 bans ease, it is certain that more computer - based staff than ever before, will work from home.

To the surprise of many critics of broadband provisioning, the NBN has held up remarkably well, and the NBN co-offer of 40% extra capacity to all retailers at no additional cost through to mid- September 2020, has ensured that retailers can continue to deliver high-quality Internet services to customers.

There has been no widespread impact on data services. However, the need to upgrade the network to fibre to the premises (FTTP) or possibly fibre to the curb, has become even more apparent, as many working from home have made heavy demands on data volume and speeds, both up and down need to be increased.

Many in "design roles", education and research, for example, have demonstrated very clearly the need for full fibre in lieu of their current fibre to the node services. Recently, Minister Fletcher has announced that fibre will replace FTTN in most FTTN areas of the NBN infrastructure and this should create more opportunities for cablers and contractors.

Fixed Wireless and Satellite, however, are the only practicable delivery means in some remote areas and during the pandemic satellite capacity was also increased and over time improvements in radio will be available.
The use of data by commercial organisations and governments is a controversial one. However, during this pandemic many governments globally have successfully used data to track and contain the spread of the virus and although our national mobiles/data tracking system has been a failure the concept can work. But it also needs a good reliable network.

Unfortunately arising from some public confusion and concerns over COVID 19, there has been mis-information spread about the risk of radiation from 5G, where there is no evidence whatsoever to support such claims and it has created a bit of a diversion from discussion on what is needed in Australia to provide us with a modern accessible and secure network for both fixed line and mobiles.

Outcomes from the Ministers' announcement in January of an ACMA review of a national model for telecommunications disaster management, are not yet public.

For cablers, some recently redundant networkers will get a reprieve and there will also be some extra work in customer premises with cabling upgrades and in building renovations. Again, we say that the last metre of cabling, if faulty can undo all the great alarm and other facilities on offer and the need for cablers to be registered and properly trained, is paramount.

Fire stopping in multi-level buildings

(The following article is an excerpt from Paul Stathis- BICSI. A more detailed article may be published at a later date in the eTELIT).

While fire protection isn't a common issue for cablers, most cablers will be confronted by it when they need to route cables through a wall or floor that's classified as a fire-containment (or fire-rated) barrier. For some cablers, this is a regular occurrence and they know exactly what to do. But for most cablers – especially those unfamiliar with the fire regulations in Australia's National Construction Code (NCC) – it can be quite daunting when they consider the liabilities they're taking on by potentially compromising a fire-containment barrier, thereby putting lives and property at risk. Every cabler must understand that there are major responsibilities and accountabilities whenever a penetration is made in a fire-rated barrier, no matter how small or large.

This was a major issue for the committee revising the AS/CA S009:2020 cabling installation regulations, with the existing 'firestopping' clause updated for better guidance to cablers in these situations.

Hilti Australia's Fire Protection Codes and Approvals Manager, Hani Adnan advises that the NCC stipulates safeguards against the spread of fire and smoke for all classes of buildings in Australia that can save lives and protect assets when emergencies do occur, by specifying a minimum requirement for each building class depending on expected fire loads, which are largely determined by the building's nature of use and rise in storeys.

"The NCC lists four major elements in effective fire-safeguards – Prevention through training; Detection and Suppression; Containment of fire and smoke; and Escape Routes," explains Adnan. "We'll focus on the element that impacts cablers the most: containment.

"Containment is the compartmentalisation of spaces in a building using fire-resistant walls and floors to control the spread of fire and smoke. Apart from limiting damage, this is done primarily to give occupants ample time to escape. Fire-containment is determined at the very early stages of a building's design, so that fire hazards and risks are eliminated or minimised over its lifespan.

"Perhaps the greatest risk in terms of a fire spreading are penetrations in fire barriers that may have been made by a contractor like an electrician, cabler or plumber. If these gaps aren't secured with a passive firestop product, they can undermine the entire system.

Telecommunications – The fourth utility as an essential service

We have written before about the importance of telecommunications as a fourth utility as it is an Essential Service along with gas, water and power and that it should have some of the regulatory controls needed to protect consumers and staff working on it. In vocational training, telecommunications is a poor cousin of most other technologies in the utilities and there is a contrast with Europe in the context of economic development after COVID 19.

The European Union is planning for development of new industrial alliances including on raw materials, micro-processors, telecommunications, low carbon industries and industrial clouds and platforms. We need to have a national plan for industrial development in Australia and our excellent vocational skills nationally, could be used to the advantage of all.

Rubber sheathed electrical cables-risk management

Customer premises cablers in telecommunications and data will come across electrical cabling from time to time in domestic installations that are sheathed in rubber.

This legacy cabling is subject to removal; fitting of RCD and/or AFDD devices; and reporting action, depending on the state/territory rules.

There are two types; VIR - Vulcanised Indian Rubber and TRS - Tough Rubber Sheathed.

Property owners should be advised and care taken when working in the proximity of these. Local guides/rules should be checked when these are likely to be encountered.

Installation requirements for Customer Cabling (Wiring rules AS/CA S009:2020)

This industry standard explains the installation and maintenance practices that you must follow. It covers the requirements for fixed or concealed cabling or equipment that is connected, or is intended to be connected, to a telecommunications network.

The industry standard AS/CA S009: 2020 was published on 20 August 2020. An 18 month transition period commenced on that date during which time the AS/CA S009: 2013 industry standard can still also be used. A link can be found on the TITAB website to download the new standard.

Smarter safety tech needed to protect tradies as construction reopens

(This article was written by Sean Carroll of the Electrical Connection magazine)

As Melbourne construction sites prepare to get back into the full swing of work following the easing of restrictions, ensuring the safety of tradies will be the number one priority.

Large constructions sites may now have up to 85% of their baseline workforce or 15 workers on site. This is up from 25% during stage four lockdowns. On small construction sites, specialist tradies will be able to move between five sites, up from three.

Australian and global technology experts have warned that building sites are one of the most hazardous places to work – even without the challenges of COVID, and that the industry needs to embrace new technology fast to keep tradies safe.

Libelium is one of the world's largest Internet of Things (IoT) companies which deploys smart devices and applications to monitor health on construction sites and cities around the world.

"COVID has made safety the number one concern for industry and the public. As the construction industry prepares to reopen, workers and communities will need stronger reassurance about health and safety," Libelium chief executive Alicia Asin says.

"IoT devices (internet-connected devices) and systems hold the key to creating safer sites, buildings and reducing impact on communities. IoT can do this measuring gases, mask wearing, group size, vibrations, dust levels, noise levels, tracking worker locations and on-site assets.

"The result would be both safer sites and, if data is shared with the public, more trust within impacted communities."

Construction has used IoT technology in the past like with a noise sensor is noise is an issue.

Melbourne-based M2M Group is a distributor of IoT devices in Australia.

M2M Group director Daryl Chambers says the opportunity lies in connecting all devices and systems so sites and communities have a total picture of 'site health': "Construction has already started to see an increase in digitisation as designers and engineers work remotely, 4D and 5D simulation is used to optimise projects, and contractors use new online tools to monitor employees online. But when it comes to safety, more can be done," he says.

"The mining industry is a great example of where this has been done well. Wireless technology and sensors are being used above and under ground to monitor every aspect of worker health. Post COVID, this is an approach construction should consider."

> *"COVID has made safety the number one concern for industry and the public"*

Cabling Provider Rules

A recent phone call to TITAB about the requirements that cablers must be aware of has prompted this reminder.

The cabling industry is regulated by the Telecommunications Cabling Provider Rules 2014. If you are a cabler, you need to follow these rules, known as 'CPR's'.

CPR's promote safety and maintain network integrity. The following is a summary of those rules:

- A registered cabler must perform telecommunications, fire, security and data industries cabling.
- Cablers must have the right registration for the type of work they are doing: open, restricted or lift registration. For details, see Types of cabling registration.
- Work must comply with the Wiring Rules - industry standard AS/CA S009:2020 Installation requirements for customer cabling
- Telecommunications cabling must be separated from electrical cabling.
- Cablers must install equipment only if it complies with the labelling notice.
- After finishing a task, cablers must give their customers the signed Telecommunications cabling advice form, available from cabling advice forms.
- Registered cablers must directly supervise an unqualified cabler's cabling work. The registered cabler must ensure the work complies with the wiring rules and must sign the Telecommunications cabling advice form, available from cabling advice forms.
- Cablers must cooperate with and help ACMA inspectors and cabling auditors.
- Cablers must notify their registrar of any change of contact details within 21 days.
- Cablers can receive a fine if they do not follow their registration conditions.

Introducing… Smart Home Week 2021

The global home automation technology market continues to grow at an exponential rate, and Australia's community of Registered Cablers are in the perfect position to capitalise on this demand.

But does the proliferation of 'smart' devices make a home 'smart'? Arguably not. And, as far as professional members of the electrotechnology industry are concerned, it shouldn't.

As the peak global body for home technology professionals, CEDIA is best placed to offer home automation integration training to Registered Cablers and is launching a new program to do just that.

An Introduction to Smart Homes

On Wednesday, 10 February 2021, CEDIA will hold two 3-hour introductory seminars on the opportunities available to Registered Cablers looking to enter the home automation sector.

Comprising a morning and afternoon session, CEDIA instructors will introduce registered cablers to the association, the home automation industry and the opportunities within it, and provide insight into the training options available in Australia.

The cost of this session is $79 for TITAB members and $99 for non-members.

Smart Home Week 2021

CEDIA is also happy to announce the launch of 'Smart Home Week' for Cablers, which consists of four full days of comprehensive training and education in home automation technologies.

This week will expose Registered Cablers to the ins and outs of home automation technologies, while giving them the confidence they need to incorporate this skill into their business offering, expanding their business and revenue opportunities. After completing the four days of training, attendees will also be ready to sit the CEDIA Cabling & Infrastructure Technician (CIT) Certification exam.

Smart Home Week will take place 15-18 June 2021 in Hallam, Victoria. The course will cost:

- $999 for Smart Home Week (*$1,199 for non-members)
- $200 for CIT exam coupon (*optional)
- $0 for CIT textbook (RRP: $AU150)

If you attend the *Introduction to Smart Homes* session in February, your $79/$99 fee will be credited against the cost of attending Smart Home Week.

To find out more information, or to register your interest, please email pskelton@cedia.org

HELPFUL CONTACTS

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ACMA
www.acma.gov.au
1300 850 115
info@acma.gov.au

TRAINING PACKAGE
www.training.gov.au
1800 454 678

COMMUNICATIONS ALLIANCE
www.commsalliance.com.au
Wiring Rules AS/CA S009:2020

UNDERGROUND CABLE LOCATIONS
www.1000.com.au

REGISTERED CABLERS
www.registeredcablers.com.au

SMARTWIRED
www.smartwiredhouse.com.au

A2A and NETWORK BOUNDARY ISSUES
www.telstra.com.au/smartcommunity/mybuilder.html

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