

TELIT Cabling Newsletter ©

May 2017

Volume 17, Issue 1

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Customer Cabling, Compliance, Industry Regulation and the Impact on Productivity!

In the last two print versions of our TELIT we wrote about “compliance” being essential but not hard to implement - if the will was there – and the critical role of cablers and cabling in a world of marketing buzz words and the “Internet of Things” where cabling – although absolutely critical – becomes something of a poor cousin.

In many community and industry discussions, productivity is mentioned but not examined critically in the context of an industry that now has reduced the directly employed, trained workforce to the lowest levels in history, in favour of contracting and sub-contracting. And where industry de-regulation and market forces too often allow quality work to become a thing of the past.

The cost of rework due to poor industry practices and poor workforce training is often covered up in workforce dispatch systems and in hand off arrangements between carriers, contractors and Internet Service Providers. In major buildings, a lot of unnecessary extra costs are simply passed on to unwitting customers by the building owners due to poor regulation.

In the domestic and small business environment it is often the case that poor initial service standards have a direct and immediate impact on customers and many call back radio conversations attest to this. It has got worse with the rollout of the NBN where confusion on the roles of TELSTRA, NBNCo and Service Providers/ISPs that is, the retailers, is widespread.

The telecommunications and data industry is large and a critical piece of infrastructure. It is vital in advocating for the common interest and to set aside the competitive components.

TITAB works with a number of industry bodies, government agencies, enterprises and trainers. They try to improve training standards, implement professional development, provide career pathways, boost compliance, develop industry codes and Quality Assurance arrangements that can collectively make the industry better to work in and at the same time improve national productivity.

There is no silver bullet; but seemingly small things can help now, such as being technically savvy, issuing compliance forms (TCA1), making sure CPR registration and training is up to speed, supporting industry codes and working in as many forums as possible to promote the industry in the interests of participants and Australia as a whole. **Note: To keep up to date please provide email address if you have not done so.**

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Telcommunications Occupations Removed from Favourable Visa (457) treatment



Amendments to the list of eligible skilled occupations on the current 457 Visa system include removal of the Telecommunications Technician and Telecommunications Cable Joints. While there is still some

confusion on the details of what the new Visa system entails, this removal from the list is not likely to have any real impact on the telecommunications workforce generally, or the NBN rollout in particular, where some speculation initially arose, after the federal government announcements.

There have been a number of skills that have benefitted from the growth of contracting in lieu of a salaried workforce and employers are now less likely to use fully trained, certificated staff and often prefer skill sets. Short duration training times can be useful for flexibility and quick starts to projects, but over time, cause a “dumbing down” of the telecommunications workforce. Whatever the outcome of the visa changes, our view is that local employment opportunities are paramount and that training is a key to long-term success for Australia and individuals. If short term training is entrenched, courses should be based on Telecommunications Training Package Competencies and accredited RTO training. Of course funding is always an issue and government needs to step up and regard training as an investment, not a cost.



Non-registered cablers still a problem!

Interim reports from recent ACMA field Audits indicate there are still some cowboy cablers who resist becoming legal, registered cablers. If you know any,

it may be worthwhile reminding them of the risk they are taking. ACMA fines are high and an obvious risk, but litigation is a sleeper.

A smart lawyer can make mincemeat of them if any customer losses or service problems emerge. They can be determined as liable, even if the technical standards are reasonably met. It is a bit like driving a car unlicensed. If an accident occurs, even if you are obeying the road rules, you can still be liable as you should not have been there in the first place.

Power Over Ethernet (PoE) – ICT Training Package update needed

TITAB has started action to update the ICT Telecommunications Training Package to cater for the growing use of Power Over Ethernet (PoE) technologies. The Testing Competency seems the most appropriate one to use initially, as it can be relatively easily modified to include PoE. Learner resources provided by TITAB Australia can then be modified after the competency is approved.

As reported in the eTELIT, we are working with some of our network of telecommunications advisers on modifying the existing “testing” competency standard from the ICT Telecommunications Training Package, and looking at to cater for the near future. Traditional Ohms Law calculations and guidelines in AS/NZ 3008 and even some of the construction standards for heat in spaces, can be a guide.

Over time there will be the impact on training, safety and skills as Power over Ethernet use grows? As a growing technology, the term “disruptive technology” applies. It is where newer technologies are introduced without appropriate regulations or standards being in place, for example, UBER in the Taxi industry.

Technical Standards for PoE and a lot of state and territory safety laws are still evolving. Meanwhile in the telecommunications and data industry sector its use is expanding rapidly. There is also some concern in the “electrical” sector, particularly with safety as PoE is in the ELV range and current rules do not readily apply.

There are many benefits in PoE using Low Voltage Power, but there can be problems with performance and heat, particularly where cables are bundled. Cablers will need to be trained to be fully aware of the fire risks and performance issues and Category 6A systems are recommended for all PoE installations. Metal connectors in lieu of plastic may also be needed for heat dissipation and care will be needed to avoid arcing.

In short, PoE has inherent risks for safety/fire and performance outcomes and cablers will need an addition to existing skills. In particular, where loads are put on some legacy cabling installations, cablers will need to accurately perform a number of special tests and checks.

Note: There is also an excellent article in the Winter 2017 edition of the Electrical Connection magazine regarding Power over Ethernet developments.

TITAB Resources

TITAB have now updated their Resource library to encompass competencies from the ICT release 3.0 package. A full list of those products is on the TITAB website at www.titab.com.au. Enquiries can be directed to Paul Cheong on 03 9631 0800.

Trade versus University: A Breakdown of Employability, Costs and Earning Potential

This article was written by Lauren Ahwan and Melanie Burgess (News Corp Australia Network)



SCHOOL leavers interested in learning a trade but dissuaded by society's bias toward university are encouraged to genuinely compare the two options. When it comes to employability, cost and earning potential, a trade option often can come out on top.

NECA Electrical Apprenticeships general manager Tom Emeleus says more school leavers are going to university based on a myth that it is the only way to secure a strong future but fewer jobs require a degree than many people think. "We're setting up a generation of youth with unrealistic job expectations and large debt," he says.

"In NSW there are 10 qualified school teachers seeking employment for every available job. This is just one of numerous examples. "Tradies understand the value of a trade and the career opportunities it represents but the message isn't getting through to school leavers."

EMPLOYABILITY

Of 2014's apprentice and trainee graduates, 84.1 per cent were employed after completion, the National Centre for Vocational Education Research finds. Of university graduates from the same year, by comparison, 68.8 per cent of those looking for full-time work found it within four months, Graduate Careers Australia data shows. Emeleus says electrical apprentices in particular have high employment rates and 99 per cent of NECA apprentices are immediately hired.

Electrician Ben Proudfoot does not regret his choice to pursue a trade over university as he was hired straight out of his apprenticeship by host employer Stowe Australia. Proudfoot, a NECA graduate, says his parents never pressured him to go to university but some of his friends that chose that path did not understand the appeals of an apprenticeship – although now they do. "Some of them are happy with what they are doing but some go 'oh I wish I had a trade' when they see what I can do," he says.



STUDENT DEBT AND EARNINGS

University fees differ depending on degree and institution but range from \$6000 to \$10,000 a year. An apprenticeship, on the other hand, is paid for by the employer so the apprentice can graduate without debt. They also earn while they learn unlike with a university degree, during which students must rely on parents or work part time on top of study.

A first-year apprentice bricklayer employed on award rates, for example, usually earns \$12.78 an hour, increasing to \$20.07 an hour as a fourth-year apprentice. In electrical trades, Emeleus says an apprentice will typically earn \$150,000 over the course of their training.

GRADUATE SALARY

The median annual starting salary for a new bachelor degree graduate younger than 25 and in their first full-time job was \$54,000 in 2015, Graduate Careers Australia reveals. By comparison, NCVET finds the median annual income of a VET graduate working full time is \$56,000. For those employed before finishing training, the median was even higher at \$59,000. Emeleus says new electricians on award rates start on \$56,000 but many in the construction industry can earn as much as \$80,000 to \$91,000 a year straight out of their apprenticeship.

Flush with cash: Australia's best paid tradies.

TAFE NSW Illawarra Institute director Di Murray says people are surprised how far a trade, and vocational education, can take them. "You only have to think about how much you might pay a plumber to come in and do some work for you – trade qualifications can pay very well," she says. It is the ability to use a trade qualification to start your own business that is key to a higher income. As is gaining qualifications in an area experiencing skills shortages.

Toby Clare, 29, dropped out of a business degree at university and instead studied plumbing and carpentry. Now a licensed plumber and builder, Clare says he is so busy he is turning work away. "I was fairly confident I could earn just as much money doing a trade as I could have if I'd stayed at uni (and gone into a career in business)," he says.

Ultimately, any career has the potential to be highly profitable though, according to university professor Maurice Pagnucco. Pagnucco is head of computer science and engineering at the University of NSW, which topped the list of Australian universities with the most millionaire graduates. "It would be misleading to say that if you want to become a millionaire you have to do this particular course," he says.

"I would just say ... do something you are passionate about because if you do that you are much more likely to want to work hard at it.

Factors that can Affect your Internet Experience

(This article was written by nbn™)

From the equipment you use, to the network itself, there are a number of factors that can have an impact on your internet experience.

The set-up at your home or business

It's always worth looking at your internal set-up to see if you are getting the most out of your connection.

Networking equipment

Check the quality of your networking equipment (modems and routers). A better modem/router could transform your experience into something spectacular.

Wi-fi interference

Other electronics can also affect your wi-fi connection. Mobile phones, micro-waves and TVs rely on radio signals, so having your router placed as far away from these devices as possible can help.

The amount of devices online at the same time

If you have many users and many devices and you do things like stream video on a regular basis, you should discuss higher speed plan options with your service provider to ensure the best experience.

Your phone and internet service provider

Your choice of service provider can have a big influence on your internet experience.

Network congestion

The way a service provider configures and shapes their network can have an effect on how you experience the internet - particularly during peak usage times. Understanding how different service providers approach congestion during peak usage times should influence who you choose.

The speed tiers and plans offered by phone and internet service providers

Not all service providers offer plans based on the full range of wholesale speeds offered by the nbn™ network. When choosing the right speed and plan through your service provider, make sure you take into account your own needs – how many devices you will have online at once and what you will be using the internet for.

The quality of the wi-fi unit provided by the service provider with your connection

The wi-fi unit provided by your service provider will have an effect on the amount of devices that you can connect simultaneously online. It will also have an influence on how far the signal strength extends throughout your premises. Check with your service provider if the wi-fi unit they provide will meet your expectations.

The nbn™ network

nbn is building and maintaining the national broadband network across Australia. There are a large number of network components and cables used to connect your home to the internet and sometimes things go wrong. If you have trouble with your connection, contact your service provider, they have the tools to troubleshoot and determine if and where a fault may lie. If the fault is detected in the nbn™ network, they will work with your provider to get your service restored.

nbn is a wholesaler which means they do not sell directly to the public. To connect to the nbn™ network, you need to speak to your phone and internet provider about a plan that best suits your needs.

Editors Note: *This article was provided for cablers to better understand the nbn "experience" from the consumers point of view!*

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