TELIT Cabling Newsletter ©

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Quality and Productivity-Changes Needed!

At TITAB we have regularly expressed concern over the impact on training and skills development of "competition" and "deregulation" of Telstra, where a fully resourced national training system for technical staff was effectively dismantled. There was no viable replacement other than rhetoric about the value of "competition" and some politician's assurances that the "market" would evolve to meet requirements.

"Competition" may be offering consumers more choices of services and suppliers – some services are technology based and would have been delivered anyway - but the lack of any national training scheme to replace Telstra's has been a disaster. Combined with contracting and more particularly, sub-contracting, there has been a dumbing down of major parts of the telecommunications workforce and increased complaints over poor quality installations.

The rollout of the NBN has highlighted a number of gaps in the skills of the workforce. The "duckshoving" of the responsibility to fix customer problems between NBN, Optus, Telstra and other retailers, when a bad installation has been performed, often arises from technical ignorance as well as "commercial" pressures. While Subbies are simply not paid enough to do the job, often they lack the necessary skills for quality work as there is no viable industry process to train them properly. So usually only bare, mandatory, WH&S is covered, along with a minimum of enterprise telecommunications training.

We continually work on problems of non-compliance, with un-registered cablers and some unscrupulous suppliers of products who do not supply approved cable and technically compliant equipment items. As an industry, we lack national advocates and a spokesperson or organisation to advocate the common good and compared with many other industries, telecommunications is very fragmented.

We need proper audits, inspections, a national training scheme with well understood competency standards and a well resourced industrial/commercial body to represent our common interests. Productivity is a buzz – word, but sensible steps needed to improve it are rarely taken. The NBN rollout can be an opportunity for government regulators and industry to facilitate some common sense, regulatory changes that need not be onerous, but directed to improve quality and services by addressing the real issues that ultimately hold all of us back. Industry players need to speak up in as many forums as possible and organise for the future. The nation deserves it!

Unregistered cablers – Beware!

A Recent ACMA field audit show there are still some "cowboy" cablers operating illegally; that is, as un-registered cablers. More details of the report will be in upcoming TITAB newsletters.

It is worthwhile reminding any other cabler you know of the risk they are taking. ACMA fines are high and an obvious risk. But *litigation is the sleeper*.

We have said before, a lawyer could make a strong claim against them for future customer losses or service problems that emerge from cabling. They can be liable, even if technical standards are reasonably met. Like driving a car unlicensed, if an accident occurs, even if you are obeying most of the rules, you can still be liable as you should not have been in that situation in the first place.

Also, it is an ACMA *mandatory* requirement to leave a compliance form, TCA1 for new cabling.

A recent article was received about non compliant work:

On 1 August 2017 the Electrical Licensing Committee held disciplinary hearings which involved one cabler.
An excerpt from the finding is as follows:
"An electrical worker employed as a communications equipment installer connected …… A few months later, a second year apprentice working on site received a shock when he came into contact with a live neutral inside a junction box. The electrical worker received a deferred license suspension for six months until completion of two competency units at a registered training organisation. His license was also amended to state "All electrical work done under this license must be done under supervision" for six months".

Have you changed your details?

In order to keep our records up to date you should inform TITAB of any changes. This includes changes of address, emails, phone numbers etc.

This way you won't miss out on our newsletters which have the latest industry news. It also enables us to post out renewals and registration cards in a timely manner.

You can update your details via phone on 03 9631 0800 or by email at: info@titab.com.au.

Review of Technical Standards S008 and S009

Technical standards, AS/CA S008 and AS/CA S009 are being reviewed now and we are getting feedback from working committee members associated with TITAB, RCWS and ADTIA. As developments occur we will report to our members as much as possible, given the confidential nature of some deliberations.

It will take some time to complete a draft for public consideration and if there are any particular issues of concern our members would like raised, we can pass them on.

Items have been raised with us by members include: GPO Wall Plates with particular communications items attached, PoE power levels and related cable heat capacity.

Foxtel Coaxial cable

A query we occasionally get in the national Office relates to CPR registration requirements for FOXTEL services and particularly the co-axial cable. The co-axial part of the service - the lead in co-axial cable in the case of a FOXTEL cable connection and the satellite co-axial – do not require a CPR registration, as this is defined as carrier cabling.

A cabling registration is only required if a PSTN telephone outlet for the set top box is provided - unless it is the first PSTN socket in the house. If it is the first PSTN socket, it is carrier network cabling and no registration is required and the carrier rules apply.

Power Over Ethernet (PoE) – Cat 6 &6A

PoE is a technology application that will continue to cause concern as more wattage is drawn down by devices connected to "data" cabling. That is a core of the problem – wattage!

Legacy cabling usually has not been rated for PoE. In short, you could use Cat 5 but overload could be an issue. With Cat 6 and 6A, in broad terms, the difference is cable diameter, so 6A can carry more current, therefore the wattage rating is higher.

It should become common practice that customers are advised of the wattage capability of whatever is installed - Cat 6 or 6A – so additional items connected over time have their load factored in. There are numerous references and standards/guidelines and Dr. Google is a big help.

Industry Code

The Registered Cabler Website Consortium - made up of the registrars and the ICAA (International Copper Association Australia) – have modernised the original industry code.

The complex process of approvals from several agencies is now at the final stage. The code applies to business entities and is a progressive step in the Quality Assurance process.

Who is to blame for the lack of speed? (A cablers response)

(Article provided by Ian Millner)

This has always been a big question and can go around in circles, so if we can answer this to ourselves we can then also inform our customers. There are a few elements that can impact on speed and some of these are:

- Your home network and equipment
- The type of access you have
- Your RSP network
- The sites you are using

Your home network and equipment

Your home network – is it wired, wireless or other technologies.

A wired network will give you the most reliable network connection between the device that is connected and the service providers Gateway. You can easily check the connection speed as it will be shown under the network options.

WiFi will give you very flexible connectivity but it will be impacted by the number of users and the level of interference. So, the more WiFi devices on the WiFi network the slower the link between the device connected via WiFi and the service provider gateway.

Other connectivity technologies could be HomePlug and that is where the electrical cable is used to provide the connectivity. To determine the speed, you may need to drill down or access different devices. For example, if you want to see the link speed go to "Settings" or control panel depending on your version of windows. Click on "Network & Internet" and you will have a screen that should look like Figure 1. Scroll down and click on "Network and Sharing Centre". There you will see if you are connected via "Ethernet" or "WiFi".

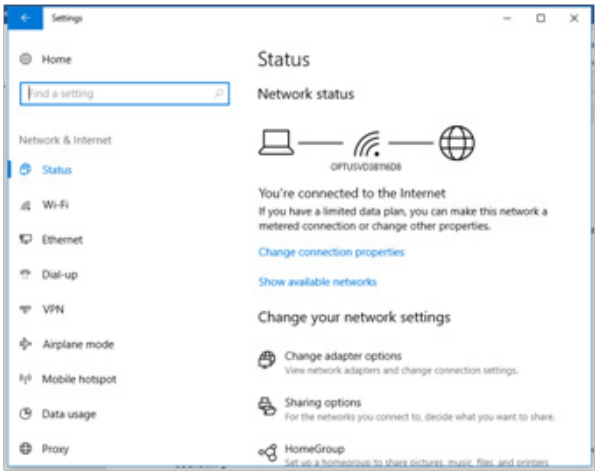


Figure 1 What is the computer connected to

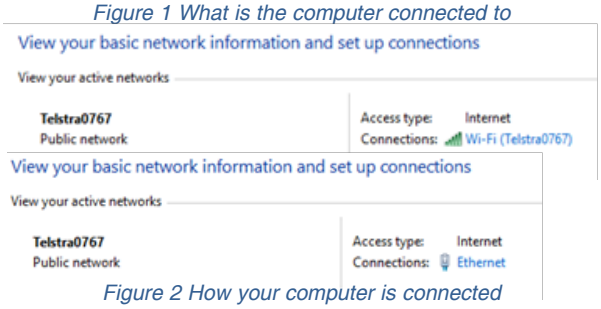


Figure 2 How your computer is connected

Now you can click on the connection and see the speed:

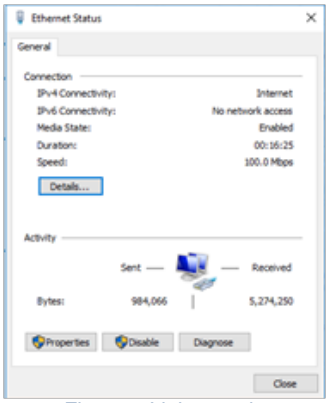


Figure 3 Link speed

Link speed is 100Mbps. This link speed is available to the device connected between it and the gateway as this is not a shared media

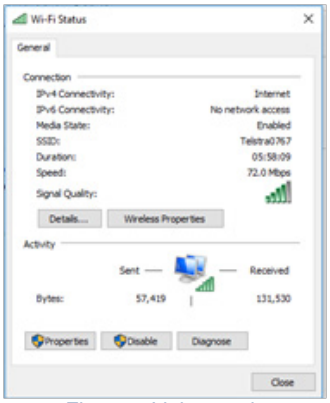


Figure 3 Link speed

Link speed is 72Mbps. This link speed is shared between this device and any other device connected to the gateway using the same WiFi network

The type of access you have

What type of access network you are using to connect to the internet. If the network provider is nbn™ then the access type is; FTTP, FTTN, FTTB, FTTC, HFC, Fixed Wireless, Satellite. If you have FTTN, FTTB, FTTC and HFC you can check the link speed available on nbn's part of the network. You can usually do this by login into the Gateway and looking at the

"Connection status", see Figure 4.

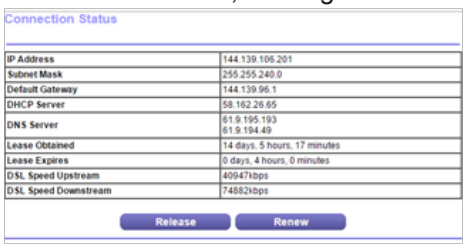


Figure 4 Status on nbn's network

Figure 4 shows the nbn's network is providing 74882Kbps down load speed, that is in rounded figures 75Mbps and the upload is 41Mbps.

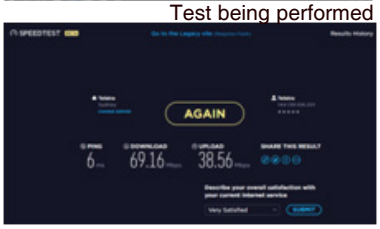
Your RSP network

So far, we have the device this article is being typed on connected to the gateway at 100Mbps and the link speed between the Gateway and the RSP connected at 75Mbps/41Mbps. So how can we check your RSP's side of the network.
Go to www.speedtest.net and run the test.

As you can see the speed available on nbn's network element and the speed testing the RSP's network show them to be close to each other, so if you allow for overheads,

this indicates that the RSP's network is not impacting on the speed. If on the other hand the speed test showed a much lower speed relative to the nbn's network element then you could conclude the RSP was not keeping up its side of the bargain. Note, what is best is to do this test at various times during the day so you can benchmark the service and easily identify if the problem is with your network, nbn's network or the RSP's network.

Test being performed



Results, download speed of 69Mbps and upload of 39Mbps

Figure 5 Testing of internet speed

The sites you are using

Finally, it does not matter how good the link speed is, if the sites being accessed are not hosted to cater for heavy traffic or some other impediment to performance you can still experience what seems to be slow response.

As cablers, we need to be clear on the technical issues and convey to customers the facts. There are many myths around what is provided by RSP's.

Electrical Connection magazine-Still the best for cablers!

For many years TITAB has supported the *Connection Magazines* as good value for money for our cablers and also other trades. The current *Electrical Connection* is a continuation of the *Cabling Connection* magazine which for many years was specifically focused on communications cablers.

Due to changed market conditions from the GFC to around 2012, the management of *Connection* magazines were unable to economically continue with a specific *Cabling Connection* and the **Cabling** information formerly in the *Cabling Connection* has morphed into the *Electrical Connection* magazine.

The Editor, Paul Skelton, has provided a snapshot of the history of the "Connection Magazines".

"Founded in a small office in the Victorian suburb of Carnegie, Electrical Connection was started by magazine publisher Jeff Patchell and his team at Patchell Publishing (now Connection Magazines). Originally called The Australian Electrical Contractor Connection, the magazine went through four iterations of its name until it settled on Electrical Connection.

Back in 1995, Patchell Publishing already published two magazines for plumbing and building contractors – Plumbing Connection and Building Connection (both of which are still published today.

Jeff said - "After the response we received for our other titles, printing a magazine for the cabling and electrical sector simply made sense.

We wanted to apply the same philosophy of independent, educational, relevant and technical content to this industry. We wanted to raise the standard of the whole industry, so that's what we set out to do.

Over the past two-and-a-bit decades, the magazine has continued to evolve alongside the electrotechnology market, often acting as a mouthpiece for an industry that is under-represented or under-valued. Together, we aim to build this market well into the future and continue to educate the electrical leaders of tomorrow."

To subscribe to the magazine, visit:
www.tradestuff.com.au/product/electricalcabling-connection-magazine-subscription/.

Cabling Advisory Group Reactivated with ADTIA

Australian Digital & Telecommunications Industry Association Inc.

The Cabling Advisory Group (CAG) was originally a responsibility of the Australian Communications Industry Forum (ACIF) later the Communications Alliance (CA) and more recently, in essence, an independent committee.

It has now been reconstituted under the management of the Australian Digital and Telecommunications Association (ADTIA), a registered industry association and CAG now has an increased membership of around 30.

The membership encompasses most of the key communications industry players and will now have a wider role in representing communications matters to government, its agencies, regulators and other stakeholders, than the original CAG which focussed more on cabling specific matters. The new CAG reports to the ADTIA and makes recommendations on the many challenges in the industry.

Contact Information

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Standards Australia
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Underground Cable Locations
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A2A and Network Boundary Issues
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