Tuesday, October 31. 2017

NBN With Multiple Phone Outlets

Australia's NBN, how it will affect your existing landline phones when you are migrated depends on how your home is currently wired and how many phones you have.

There's been a bit of rubbish being spread by RSP (Retail Service Provider - AKA: ISP) sales type people telling you your existing phones wont work when you're moved to the NBN. There is some truth to this, but no you likely do not need to re-wire your entire house or some such rot, or buy dect phones as only means of more phones, as many are being told, and despite other rhetoric from these sales geniuses, you can have more than one fix wired phone.

There are issues with leaving multiple active outlets in place on your original phone line when NBN connects your new service with their VDSL modem that's for certain, they can and do create issues that result in poor performance with your service, that's one of the few things NBN chief Bill Morrow and I actually agree on

There are typically two wiring layouts of a home with multiple outlets and ADSL, the first and most common is daisy chained, that sort of looks like this

(if any diagrams look incomplete, click on them for full size)

If you have such a setup, NBN may or may not (but should) disconnect the rest of the sockets from that first socket, also known as NBP (Network Boundary Point) in the chain, if they don't, you'll need to have a Registered Cabler do it for you (I heard recently that to stop many trivial NBN connection and speed complaints, that NBN techs are now doing this), and, if you want your other phone points to work again, you will need a Registered Cabler to come and make those changes anyway, in most cases, it's a matter of doing a little bit of wiring work at the first outlet, changing over the face plate and popping a couple more sockets in, much like figure 2 below

We see with the 3 gang outlet, the first socket is the active NBN line and connects to your VDSL modem, the second and third sockets are linked together, you take your voice out from the VDSL modem and plug it in to the second socket to distribute your voice service through to all other analog phones, and you can plug in an analog phone into the third socket, so you have a phone right there with your modem.

Another, less common wiring setup would be what's known as star wiring, this is where multiple cables are run from a central point, usually the Telstra (or now NBN) NTD (Network Termination Device), a big brownish looking box on side of your house next to your power box, as shown below

In this case, your costs will be a bit more because a Registered Cabling Provider will need to do a lot more work, like disconnecting all but the modem line, and altering your cabling similar to the previous example, or re-star wire your other sockets from a new central point close by your modems socket, there are various ways this can be done, in most cases they can still re-use some (if not all) of your existing phone cabling.

It's important to note that just because you have the big NTD box on your wall outside, doesn't mean you have star wiring, you may still have a daisy chained system.

Since early 2017 Telstra, and now NBN, will only install and cable your lead-in up to an NTD, rather than a wall box and first outlet, on all new installations. This means the builder, or home owner, will need a Registered Cabler to do the actual wiring of the home and connect that to the NTD.

These are not all the wiring configuration possibilities, but they are the most common, so obviously existing daisy chain setups are the quickest and cheapest to convert, star wiring, the longest and more expensive.

The above is pretty much also applicable if you want to use an independent VoIP provider, rather than the VDSL modems voice port - which is just an ATA (Analog Telephone Adapter) inbuilt to the modem, just like many ADSL modems with VoIP ports, that's all it is, nothing special.

To use a private VoIP service, such as MyNetfone for example, using your own ATA you'll be running its phone-out (FXS) port into that new second socket at the first 3 gang outlet, rather than the voice port of the NBN modem.

Most RSP's are not divulging the SIP logins they provide on those voice ports, they seem to think it's like some state secret. Now... I don't condone it, and I wont tell you how, but there are ways around it - Google or Bing are your friends

But personally, I'd be using a private VoIP service and not an RSPs over priced voice offering anyway, because, well, it's hard for them to let go of their 90's era business models.

Trying to use your own VoIP account on their modems likely wont work either, because they control that part, with you unable to even access that section of some providers modems.

Whether using an over priced voice inclusive plan an RSP offers, or using your own private VoIP service, I hope you're now more informed on what happens to your house wiring, and what changes you might have to have made.

*** WARNING: It is a criminal offence in Australia to tamper with, alter, or perform any phone or data work if it is, or even if it can be, used on or over a telecommunications or data network, including behind air-gaped WiFi devices, unless you are a Registered Cabling Provider with appropriate endorsements.

Existing penalties such as on-the-spot fines of $2040 for very minor breaches, or in more serious cases, court imposed fines of $90,000 and criminal conviction recorded is a real probability, as well as the likelihood of the removal of all illegal cabling.

Phone and Data Cabling can only be done by a Registered Cabler, NOT yourself, not even an Electrician unless they also have a current Open Cablers Registration and applicable endorsements ("S" as a minimum), so if you use an Electrician, just like any person claiming to be authorised to conduct such work, you should ask to see their Cablers Registration Card, if they can not produce it for ANY reason, they must not be allowed to perform such work until they can produce it, an Electrician licence is not sufficient and does not authorise a sparky to do any phone or data work.

Those who claim to be licenced for Telco/Data cabling, are not, there is no licence, it is a registration, those who are ACMA authorised know this, and will only represent as registered, and never as licenced, this is also how Electricians who are not registered and therefore not ACMA authorised, are caught out.

Registered Cablers have undergone the ACMA required training - which since 2014 requires a 100% pass mark, and have completed 360 hours of directly supervised on-the-job experience before being eligible to become a Registered Cabling Provider, Electricians do what they do well, but most of them don't do much phone or data as a rule, and most of them are not ACMA approved Registered Cablers, and those who are, may have used a loophole allowing their electrical licence to avoid performing 360 hours of telco and data cabling experience before registration.

Posted by NoelB at 17:47