Media converters an excellent way to bridge the fibre gap

By Inus Dreckmeyr

18 Jun 2015

While many don't want to admit it, there are those dark recesses of your network that are still copper based, the areas you have left alone for decades because the alternative is to rip it all out and replace it.

Inus Dreckmeyr

But this is a fallacy fabricated by companies looking to gain more business from you. The truth is you can upgrade your existing network to fibre without the expense of 'rip and replace'.

This is the single biggest reason that is holding companies back from switching these areas to fibre. However with the simple deployment of a couple of inexpensive media converters, you can convert even these older areas to fibre. How? With a media converter you change the signal on the network from a copper signal to fibre without making any other changes to the network.

This is by no means a new solution and has been tried and tested by companies for over a decade. But then why didn't you know about it? Because companies need to sell new equipment and new solutions - grappling with the old which is being written out of product lists isn't high on the agenda. But that's not to say you need to be left high and dry with an older network.

Converting the last link

Media converters are touted as the link between creating the optical last mile connection within a network. So think of it converting that last link between your LAN (land area network) and your MAN (metropolitan area network). The truth is that while vast parts of your network today are probably fibre, in order to help you house VoIP based telephony systems, there is more than likely a proponent of your LAN that is not, because there are still areas in your business where copper and fibre have had to co-exist.

This is where a media converter comes to play. Media converters work at a physical layer on your network, they receive data signals from one media and then convert them to another. The process is invisible/seamless to your data and makes the one network 'look' exactly like the other without changing the actual nature of the network.

Typically, a media converter is a small device with two media dependant interfaces and can be installed anywhere in the network. The type of converter required depends exclusively on the nature of the media that needs to be converted, which means they are available in a host of sizes.

While they act at a physical layer on your network, they do not interfere with upper level information on your network. What's more, they are as easy to install as your patch leads - which means you don't need to invest in expensive skills in order to get them up and running. The best way to visualise it as just an added element to your network typology.

Network speed

Importantly the media converter will not change the speed or flow of your network. Instead, they rely on the end devices for this and will allow the device with the highest speed act as the common denominator. Remember, network speed needs to be homogeneous in order for traffic to flow across the network, without this data will not flow. Which is why the media converter merely relies on the highest common denominator and then facilitates the communication.

It is also not a bridge, or a switch; it does not have the power to look at your data or addresses. It is also not a repeater so will not react to or pick up anomalies on the network. It just facilitates the communication 'change' and passes the one form to another seamlessly.

Typically customers who should consider the use of a media converter would be those who need to extend the limit or length of a network. Bearing in mind that copper can only really extend to 300 feet where fibre is more flexible. It is also a good alternative for customers where their ports are copper but devices are all fibre, as well as for companies undecided about the future of their network and need a quick fix/inexpensive solution to help their network act like a fibre network.

Media converters are an excellent means to bridge the fibre gap for your business without you having to make costly decisions about what to do with your copper based LAN.

ABOUT THE AUTHOR

Inus Dreckmeyr is CEO at Netshield South Africa