

## **‘Pro’ or ‘Con’ – vergence?**

The virtues of network convergence are widely extolled, but does convergence make business sense or is it just the latest technology fad that all the big boys are trying?

Convergence is not simple. It requires significant effort from the telecoms provider and often involves a redesign of an organisation’s network infrastructure. But that is not the whole picture. By enabling organisations to take a more flexible approach to their network, considerable cost savings can be made.

What many don’t realise is that there are actually three levels of convergence - ‘non-convergence’, ‘cooperative convergence’ and ‘intelligent convergence’, and like yoga, it often makes sense to join the beginner or intermediate class!

Non-convergence is exactly what it says on the tin - networks dedicated for each purpose, whether it be Internet, voice or VPN. This can be very inefficient as you pay for multiple networks regardless of capacity used.

Cooperative convergence is where we are today. Large corporations and public sector organisations are working with carrier partners to tailor-build a set of metrics for all their network traffic. These metrics ensure business critical data, such as voice calls, is prioritised over the shared network.

Next will come intelligent convergence - the yoga masterclass - where the intelligence is in the carrier’s national network itself. With intelligent convergence the network will ascertain the type of traffic that’s passing across it, and treat it in the appropriate manner. The carrier will establish a number of metric sets and the customer will buy “off the rack”. This will drive down the cost of convergence as well as simplifying it, making it more accessible, particularly to smaller businesses.

For any of these types of convergence to work, a carrier needs to support Quality of Service metrics. IP on its own is not enough, so MPLS (multi-protocol label switching) has been developed to ensure specific types of data cross networks in the best way. This may seem unnecessary, but if you look at the Internet a little like a roadmap of Britain you wouldn’t dream of heading off on your scooter from Kent and expect to arrive in Liverpool on time without a map. Nor should you expect your data packets to find the best route and arrive in the right order without a little guidance. MPLS also allows different priorities to be set for each category of data, a little like a Ferrari getting priority over your scooter at the traffic lights.

Convergence sounds ingenious, so why isn’t everyone making the change? One of the reasons is that an organisation needs to make sure that the upheaval and investment do not outweigh the benefits. For example, a single site moving to a VoIP LAN configuration using IP phones may need to completely re-engineer the LAN. There may be other reasons why an organisation would want to do this, but convergence on its own will probably not justify the upheaval.

Multi-site organisations may realise gains more immediately by saving on intersite costs, with a plush WAN or tailor-built Ethernet network, however again this may require a sizeable initial outlay in infrastructure investment before savings can be achieved.

If VoIP appeals primarily for costs reasons, organisations may find that services like carrier pre-select and wholesale line rental may give more immediate savings.

Rest assured, convergence is certainly not all hype. Some industry sectors are taking the proposition to a whole new level. Broadcasters such as GWR (the group that recently merged with Capital Radio) have, in the last year, invested in technology firsts that have included multicasting and converging broadcast data onto the single corporate network. This means that broadcast traffic, the lifeblood of any radio company, is sharing a network with voice traffic, email and corporate applications. Now *that* is an exciting prospect, and proof that one powerful network can be quite sufficient for any organisation.

Keep your eyes on the media sector. Often the first to jump at new technologies, media companies have put a lot of effort into making convergence work for them, and are already reaping the rewards.

The whole *raison-d'être* of convergence is to simplify networks and increase bandwidth flexibility, but customers need to ensure they will actually achieve savings before going down the convergence route. If a telecoms supplier tries to convince you that convergence is essential for your business, make sure they understand your business and not just their own before you put your network in their hands.