Putting users first in global networks
Building a robust communications network that can support an organisation in the digital age presents many challenges – the foremost being which approach should you take: regional or global.

With technological advances, increasingly organisations are looking at global markets, but to do business effectively, a reliable network is the foundation for success.

For organisations with operations around the world, robust telephony, video-conferencing and collaboration tools are essential, along with the delivery of shared apps to employees, but there are two choices when building a global communications network – a global wide area network (WAN) with a single telecommunications provider, or taking a regional approach that relies on a series of regional network providers to provide coverage across different geographic regions.

Bernt Ostergaard, analyst and service director at Quocirca, says it is not a one-size-fits-all question. “It may well be a strategy area that is reassessed and changed regularly depending on global business requirements, corporate priorities and developments in communications service offerings,” he says.

But organisations have to start somewhere and Ostergaard says the basic premise is keeping the business users happy and putting their needs first.

If business growth is a priority, users in new offices who are added to the network following mergers, acquisitions or geographic expansion should not be hampered by communications problems. But performance is not everything – user experience and cost are just as important.

“The IT department cannot focus simply on performance excellence if costs or user friendliness issues ensue,” he says. It is a complex area with many considerations and there are different strategies to suit different organisations. Ostergaard says organisations may adopt different strategies with associated pros and cons.

Define your strategic approach

One strategy is a mixed 80/20 approach where an organisation chooses a primary WAN service provider which has the footprint and services required. A secondary smaller provider can be chosen for a particular region or country which may have some additional services to meet their local requirements.

“The strength here is having one throat to choke. The disadvantage is you often have to take what the service provider has to offer,” says Ostergaard.

Andrew Logie, CTO at independent strategic technology advisers DrPete, says having a single provider can divest an organisation of management time as the service provider has responsibility for the overall delivery and ensuring quality of service.

“A single telecommunications provider can offer fully managed solutions and network shaping at a protocol level via Multiprotocol Label Switching (MPLS). This allows guaranteed quality of service for telephony and can manage and prioritise all data services.”
“The provider typically supplies all equipment such as router and firewall, and then monitors and maintains these from its network operating centre in accordance with service level agreements (SLAs),” he says.

Adopting this approach means developing a good partnership with the service provider based on trust, and due diligence in the selection process is essential.

Ostergaard says introducing risk-reward contracting may be one option to mitigate any downside, as it allows the organisation to share performance and risk with the WAN partner, providing them with clear upsides when they deliver better-than-SLA performance and more innovative solutions. “The advantage is reduced initial capex outlay, and a closer relationship with the service provider. The disadvantage is the need to continuously renegotiate the performance thresholds in the contract to keep up with technological developments,” he says.

By having an MPLS configuration, the organisation's network can be viewed and managed across all the sites in a seamless manner which helps with authentication and rolling out applications.

Case study: Robert Walters

To support ambitious growth plans, global recruitment consultant, Robert Walters, chose to deploy Telstra Global’s internet protocol virtual private network (IP VPN) when it expanded from 4 offices to 36 worldwide, supporting 1,500 users.

With clients in the financial, commercial and industrial sectors, the Far East provided fertile new territory for its operations but it needed to connect these regions with its London headquarters. The previous network was not robust enough to support its business plans and there was no service level agreement (SLA) to ensure governance for network reliability.

Business users were frustrated by interruptions in communications with other offices and were sometimes unable to access central back-office systems which hampered their ability to do business and global reporting.

Following a thorough due diligence process, it chose the fully managed Telstra solution for its fast, secure and reliable connectivity.

Telstra provided an IP VPN with multi-point connectivity between the key hubs of London, Tokyo, Singapore and Hong Kong, which was subsequently extended to two more nodes in Australia and a backup link to London to nail down business continuity. The network then expanded to connect new offices in the Far East and the company replaced networks from other providers in Europe and Australia.

David Underwood, IT director at Robert Walters, says choosing Telstra as a partner to deliver the new network has delivered business benefits which meet its growth plans. “We have over 40 offices around the world, so exceptional network reliability is absolutely essential for our business. Out of all the networks that we have used over the past eight years, the Telstra Global IP VPN has proven to be the most reliable.”

The network is flexible and scalable and means new offices that open in the future can be easily added to meet growth plans. Robert Walters has the convenience of one point of contact with Telstra, and no longer has to deal with four WAN suppliers, each providing different networks in different parts of the world.

Reducing complexity gives confidence in Telstra’s ability to deliver robust voice, data and video communications, which is reassuring for business users. It only has to deal with one monthly bill for its entire network from Telstra, which also supplies around-the-clock network monitoring.

Telstra supplies a range of online reports and statistics to give accurate insight into network usage and performance, so it is even easier for the IT team to manage the global network.

“‘The IT department cannot focus simply on performance excellence if costs or user friendliness issues ensue’

Bernt Ostergaard, Quocirca
Organisations that have ambitious growth plans will want any offices to be added to the network quickly and without any management headache. “The service provider will manage any technical differences between any geographical networks and implement these in the MPLS – so the client organisation retains flexibility to move into new territories as and when required,” says Logie.

**Work out the key criteria for your business requirements**

However, this approach may not suit every organisation, says Logie, and he advises organisations to sit down and work out their reasoning and key criteria for their network.

“Global providers do not have 100% coverage – most have strategic alliances with regional providers in territories where they do not operate. The cost of global MPLS can be considerable and an organisation really needs to understand and accept why this is required,” he says.

Opting for a regional strategy, which combines a series of regional network providers across different geographic regions, can lead to a broker approach where the organisation can choose a service level agreement to meet its needs. “An IT department with close ties to the business may recommend basing corporate WAN communications capabilities entirely on the SLAs negotiated with one or more service providers, and then focus on having the tools and analytical capabilities to monitor delivery compliance,” says Ostergaard.

He says the advantage is that an organisation can involve the users in the lines of business more directly, and it’s easier to manage several best-of-breed providers, when you have a single pane of glass to manage them with.

“The disadvantage is that your ability to see how the services are delivered may be very limited – for example, which third party providers may be involved or how traffic is routed – unless you include specific review clauses in your contracting. However, this can then push up the price,” he says.

**Best fit today, might not be best fit for tomorrow**

Logie believes it can be relatively simple to have a collection of internet-based lines networked together in a virtual private network (VPN) and WAN configuration if the organisation is prepared to manage multiple suppliers and technologies with possibly different SLAs, but he says this could be without MPLS functionality.

Enterprises that have stringent security requirements are likely to choose MPLS over internet-based lines, however. There is also the problem that every new location may present IT with a different set of networking challenges. Again, organisations with ambitious growth plans that want to move swiftly may find this a drawback. “Some loss of business agility could be experienced,” warns Logie. “You may need global ISP-level IT technology to attempt to glue regional ISPs together into a coherent MPLS WAN.”

Start by defining what you need to deliver for the business and then tender with global suppliers and local regional providers, suggests Logie. “Look at
the difference in cost and make a business decision based on a like-for-like as possible comparison."

“This can be achieved by understanding whether you may need more technical staff and equipment, and whether this might be more than the savings obtained from one of the other providers,” he says.

Gartner analyst Neil Rickard says the current trend is for clients to choose a regionalised network and services deployment for cost savings.

“Choice is based 80% on cost, but it can be for better service levels because a regional provider will be closer to where the problem is; and also much depends on the key regions the business needs to operate in. Some suppliers are purely regional and some global providers have a strong presence in particular regions,” says Rickard.

It makes good business sense for an organisation to assess where a provider has the strongest regional presence which is important to the organisation. “Look at where you have sites and the operator landscape. Decide which regions are very important to you, and where providers are strongest to help make your decision,” says Rickard.

Know what you need and agree service levels from the outset

He also advises organisations to look closely at governance and service levels. “With regional providers one challenge is that an organisation would like to enforce common standards, but if you mess about with processes, prices can go up. Interacting with providers electronically through self-service capability and

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Case study: University of Nottingham

Having reliable, scalable communications with campuses in Asia was a key aim for the University of Nottingham when it chose Telstra Global to deliver a network that has doubled its bandwidth between its campuses in Malaysia, China and the UK.

Telstra’s expertise and strong presence in Asia helped secure the bid during the tendering process after the contract with the university’s incumbent supplier expired.

The university needed a partner that could enable its students to become more mobile; and for both staff and students to make better use of video-conferencing as well as providing access to online research and learning facilities to support distance learning.

“Telstra understands the challenges involved in technology implementations in the Asia region and could ensure a smooth network migration. Simon Miller, network management officer at University of Nottingham, says expansion into Asia isn’t easy.

“It was vital that we chose a partner which had experience in Asia and wanted to see our organisation grow. Telstra Global was able to deliver the network reliability, performance and level of service we needed,” he says.

The Telstra network is a fully managed end-to-end Multiprotocol Label Switching (MPLS) network with managed WAN optimisation. It is scalable and enables the university to adopt new technologies in the future to support its long-term aims.

The network was delivered on time within a three-month period and within budget; and there was close collaboration between the university and Telstra on progress. Specific reporting requirements and support to manage the network means it runs at optimum and the university is confident about the network’s future to meet its exacting requirements in the competitive education market.
portals means automating processes which reduces cost and reporting errors,” says Rickard.

Appointing a service integrator to ensure overarching governance can push up costs, but may be necessary if the IT department “is not tidy”, says Rickard.

Ultimately, making the right choice depends on knowing where your organisation is heading. “You need to understand the current and future evolution of your business application landscape. If you can’t get a grip on what network you need for today and the future, you are not going to make the optimum decision,” says Rickard.

Logie says organisations should also remember that telecommunications globalisation and consolidation is still on the increase – so it makes sense to look at the viability and projected long-term success of any service providers as organisations need a stable partner. “As a result they might actually find there are fewer independent regional choices than you might think at first glance,” he says.

Also be aware that from little acorns, large oaks can grow – and often very rapidly in the digital age – so it pays to invest in a network which is scalable and can support growth. For larger organisations, reputations are at stake if their network lets them down.

“SMEs and startups typically use cheap connections and accept that sometimes calls or videos get disrupted by network traffic. For large corporates with significant call centres and a heavy reliance on enterprise applications, small issues can become large problems very quickly.

“Investing in the best, most robust applicable technology with managed services is often the best solution. However, it is certainly worth periodically re-tendering suppliers as the cost of networks and services continues to fall,” advises Logie.

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Neil Rickard, Gartner

About Telstra Global

Headquartered in Hong Kong, Telstra Global is part of Telstra Corporation Limited, a leading telecommunications and information services company in Australia.

We provide top-tier international customers across Asia Pacific, Europe and the Americas, with a full breadth of holistic and end-to-end solutions including managed network services, data, voice and satellite solutions.

Through our strategic investments over the years, we now own one of the most technologically advanced IP backbone networks in the world, through a number of global subsidiaries. We have licenses in Asia, Europe and the Americas and facilitate access to over 1,900 PoPs in 230 countries and territories across the globe.

Telstra Global is also part of Telstra Global Enterprise Services, which also comprises the Telstra enterprise division in Australia and the Network, Application, Services (NAS) business. The intention of this business unit is to focus on growth opportunities within Asia through onward investments, deploying disruptive technologies in the region and across the world, and growing international and local customer relationships.

Our success story comes from our deep understanding and experience in the Asian market for over 30 years. We consider Asia to be a key growth market – both for Telstra Global as well as our customers – due to the region’s vast economic potential, particularly in the current global financial climate.

Within Asia, Telstra Global is uniquely positioned to serve customers operating within the region as well as businesses from Europe, the Americas and other global companies looking to expand into Asia.

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