

Is your organisation's
network mature
enough for the
digital age?



Why is there increasing pressure on the enterprise network?

IDC estimates there will be almost 50 billion connected devices in use around the world by 2023.¹ The average amount of data consumed across a network will be almost 60GB per personal computer, per month.²

The networks that were perfectly adequate for businesses just a few years ago are rapidly becoming bottlenecks for organisations looking to leverage new and emerging technologies for growth. These technologies, including cloud-based applications, automation and artificial intelligence (AI), and other immersive applications, require networks that are incredibly robust, reliable, secure and fast.

Global research shows that, in the next few years, there is likely to be a massive increase in business network demand. For example, augmented and virtual reality traffic is likely to increase 12-fold by 2022, while regular business traffic will continue to grow 42 per cent annually up to 2022.³ By 2021, around half of all workloads will happen outside the enterprise data centre.⁴

Anecdotally, around two-thirds of Australian networks aren't ready for emerging technologies from an architecture, security, or service assurance standpoint. Australia currently ranks 68th in the world for fixed internet speeds and continues to drop in the world rankings.

In *The Changing Role of the CIO: Logicalis Global CIO Survey report*, 45 per cent of CIOs said their main business priority in the next

12 months was driving customer experience while 54 per cent said it was innovation.⁵

For CIOs looking to drive processes that improve both the customer and employee experience, the cost of not having an adequate network can be far-reaching and significant. For most businesses using Microsoft Office 365, access to this cloud-based service depends on the organisation's network architecture. Traditional hub-and-spoke network architectures do not efficiently support cloud-based applications such as Office 365. This means productivity lags for employees, not to mention latency issues with customer-facing applications, potentially leading to customer frustration and brand damage.

In the digital economy, collaboration is the name of the game, but lack of access to digital-ready networks means users will have a negative experience when using collaborative tools such as web conferencing. Too many organisations have to postpone or abandon online meetings due to connectivity issues.

According to Damian Zammit, GM transformation services, Thomas Duryea Logicalis, "Organisations are realising the far-reaching network impacts of their digital transformation journey. Every new step in their digital footprint requires additional capacity and agility within the network, which also brings with it security ramifications."

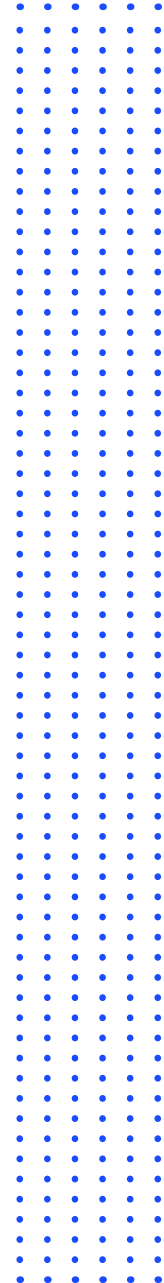
1. IDC Worldwide Global DataSphere IoT Device and Data Forecast, 2019-2023, IDC, May 2019.

2. <https://www.cisco.com/c/en/us/solutions/service-provider/visual-networking-index-vni/index.html>

3. <https://www.cisco.com/c/en/us/solutions/service-provider/visual-networking-index-vni/index.html>

4. Uptime Institute Annual Data Center Survey, 2019: <https://uptimeinstitute.com/2019-data-center-industry-survey-results>

5. <https://resources.tdlogicalis.com.au/the-changing-role-of-the-cio-report>





So, if the lack network readiness is causing so many issues, it's surprising that organisations aren't rushing to be ahead of the pack. Many are held back by an unfounded fear that making their network digital-ready means starting from scratch, undertaking a massive upgrade, or having to wait until existing contracts run out. In reality, adopting a digital-ready network simply requires augmentation and enhancement, which can be done without disruption through software-defined wide area networks (SD-WAN).

IT leaders need to consider this new, non-disruptive approach to networking to ensure they're ready for the digital age in terms of both performance and security.

What does a digital-ready network look like?

Networks of the past were largely managed manually, and required a high level of knowledge and expertise to operate. Businesses were locked into relationships with telecommunications providers.

Networks that are ready for the digital age are highly adaptive so they can flex to meet changing business requirements, users, devices, applications, and services. They can meet the high demand for a seamless user experience and provide fast, secure access to and between workloads wherever they reside.

For the network to function optimally, this needs to be achieved end-to-end between users, devices, apps, and services across each network domain. Therefore, organisations will need a new, integrated architecture for each network domain, which is customised to meet the specific needs of that domain and provides a way to communicate and enforce consistent policy across all domains.

There are four key aspects of a digital-ready network:

- 1. Business alignment:** the network facilitates new digital business initiatives and dynamically aligns to rapidly changing application needs.
- 2. Simplification:** the network simplifies IT operations and lets IT focus on creating business value.
- 3. Performance assurance:** the network consistently meets service performance and user experience requirements, and prevents network disruptions.
- 4. Low-risk:** the network prevents or contains security threats before they cause harm, and it meets compliance and regulatory requirements.

Currently, only 19 per cent of network strategists believe their networks are very well aligned to meet the demands of digital business.¹

However, transitioning from today's largely rigid, manually operated infrastructures to more agile, software-driven architectures that can continuously adapt is likely to be relatively short. As networks become more autonomous, due to AI, the network will become completely transparent to the user. It will deliver secure connectivity to the services they need at the required level everywhere, at all times.

Australia's NBN is levelling the playing field for organisations. Rather than being locked into private networks managed by telecommunications providers, Australian businesses can use the NBN to access services based in the cloud. The emergence of SD-WAN and the NBN has created a perfect storm for businesses to enhance their networks. With organisations focusing on digital transformation, user and customer experiences, and cloud adoption, solutions like SD-WAN can offer a level of control and security that internet-based services haven't necessarily had in the past.

1. <https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/digital-network-architecture/global-nw-trends-survey.pdf>

What skills are required to build a modern, digital-ready network?

More than one quarter (27 per cent) of IT leaders identified a lack of necessary skills as a main obstacle to transitioning to an advanced network and 93 per cent of executives say the skills gap is preventing them from transforming fast enough.¹

However, as network operations become more automated with intent-based networks, network administrators will take on roles that align to new operational practices related to managing network lifecycle, policy, and assurance. Network strategists will take on high-value roles that target improving business alignment, integrating IT processes, improving security, and making better use of data. This will require a different skillset to the one commonly assumed to be necessary for network operations professionals.

Currently, some of the biggest skills gaps are business acumen (42 per cent), technical skills (37 per cent), and soft skills including critical thinking, problem-solving, leadership, and negotiation (36 per cent).²

Addressing these skills gaps will require organisations to take a targeted and proactive approach to upskilling and reskilling workers, as well as tweaking recruitment practices to attract a different kind of candidate. There are five key strategies that can help organisations build a networking team equipped to power a digitally-transformed business:

1. Cultivate a culture of continuous learning.
2. Find the balance between reskilling and hiring.
3. Invest more in training and development.
4. Rotate talent to increase business acumen.
5. Foster an inclusive work environment.

This can take a significant investment for organisations with the right resources. However, in many cases the simplest and most affordable option is to work with expert partners who can put the right controls and configurations in place to start with, then help the business manage their SD-WAN into the future.

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How can you tell if your network is digital-ready?

Thomas Duryea Logicalis has a digital network readiness model that covers six key levels of maturity:

1. Network architecture is fully software-driven and cloud-ready.
2. Network is controller-based and fully automated.
3. Network uses predictive analytics and insights to dynamically adjust policy.
4. Wi-Fi enabled location analytics use real-time data to react to customer behaviour.
5. Network security uses analytics to proactively respond to threats.
6. Network optimisation means the network is constantly adapting to deliver a superior application experience.

Research showed that Australian organisations reported a higher level of readiness compared with businesses in less-developed regions but respondents in less-developed regions showed a stronger intent to grow over the next few years. In Australia, 18 per cent of respondents were already in stages four and five of the maturity model and that number was expected to grow to 49 per cent over the next two years. This is on par with global averages.³

1. <https://connectedfutures.cisco.com/wp-content/themes/connectedfutures/dist/pdf/ITTalent.pdf>

2. <https://connectedfutures.cisco.com/wp-content/themes/connectedfutures/dist/pdf/ITTalent.pdf>

3. <https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/digital-network-architecture/network-ready-digital-transformation.pdf>

Organisations with stronger network maturity can achieve 2.4 times growth in revenue, up to three per cent growth in profit, more than five times growth in customer retention, and at least 1.6 times growth in productivity versus those at the beginning of the maturity curve.

Next steps: take a network readiness assessment

Australian organisations can find out where they stand in terms of network readiness by conducting a network readiness assessment with Thomas Duryea Logicalis. Taking into account business priorities and network challenges, the assessment will provide insights into your network readiness in comparison to other, similar organisations based on industry, region, and size.

The assessment will highlight areas of opportunity for growth to help you prepare your network for the digital age.

Doing so effectively can deliver significant benefits. Organisations with stronger network maturity can achieve 2.4 times growth in revenue, up to three per cent growth in profit, more than five times growth in customer retention, and at least 1.6 times growth in productivity versus those at the beginning of the maturity curve.¹

Put simply, when your network is ready, you'll be able to digitally transform successfully, driving business growth and opportunities.

To find out where you stand on the network readiness maturity curve and how you can achieve network readiness, contact Thomas Duryea Logicalis today.

1. <https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/digital-network-architecture/network-ready-digital-transformation.pdf>

