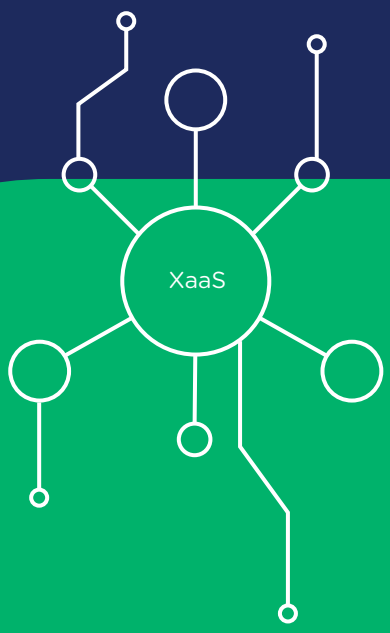
business nbn™

Transformation-as-a-Service: How to enable future change



The digital transformation imperative

Network optimisation and cloud services are making it easier for businesses to personalise and streamline their digital transformation journey.

Digital transformation has been a hot topic for a number of years, and most organisations are likely somewhere along their journey. Network infrastructure is a key lever companies can use to increase their agility and adaptability, but it can sometimes be overlooked due to assumptions that it's inflexible or comes with too many barriers to change.

We've seen businesses face unpredictable challenges as the COVID-19 pandemic has accelerated the shift towards a digital-first mindset across the full suite of operational departments. Gartner reports that globally this has led to an increase in cloud spending, even as overall IT spending fell.[1]

The shift to remote work and the rising interest in decentralisation suggests this trend will likely continue as organisations look for scalable, secure, reliable and cost-effective off-premises technology services.[2]

In the wake of the pandemic, global spending on cloud technology is estimated to rise

19%

while IT spending as a whole is estimated to fall

8%[1]

The **nbn**™ network initial rollout (with some complex connections ongoing) is the digital backbone that will underpin Australia's economy and industry. Combined with additional investment in fibre-based network solutions, enhanced business-grade network connectivity upgrade options are within reach of the majority of Australian businesses (costs may apply).*^ This helps provide a more level playing field for businesses to use cloud-based 'as-a-service' delivery models for everything from software to infrastructure to platforms, which are the building blocks for digital transformation.#

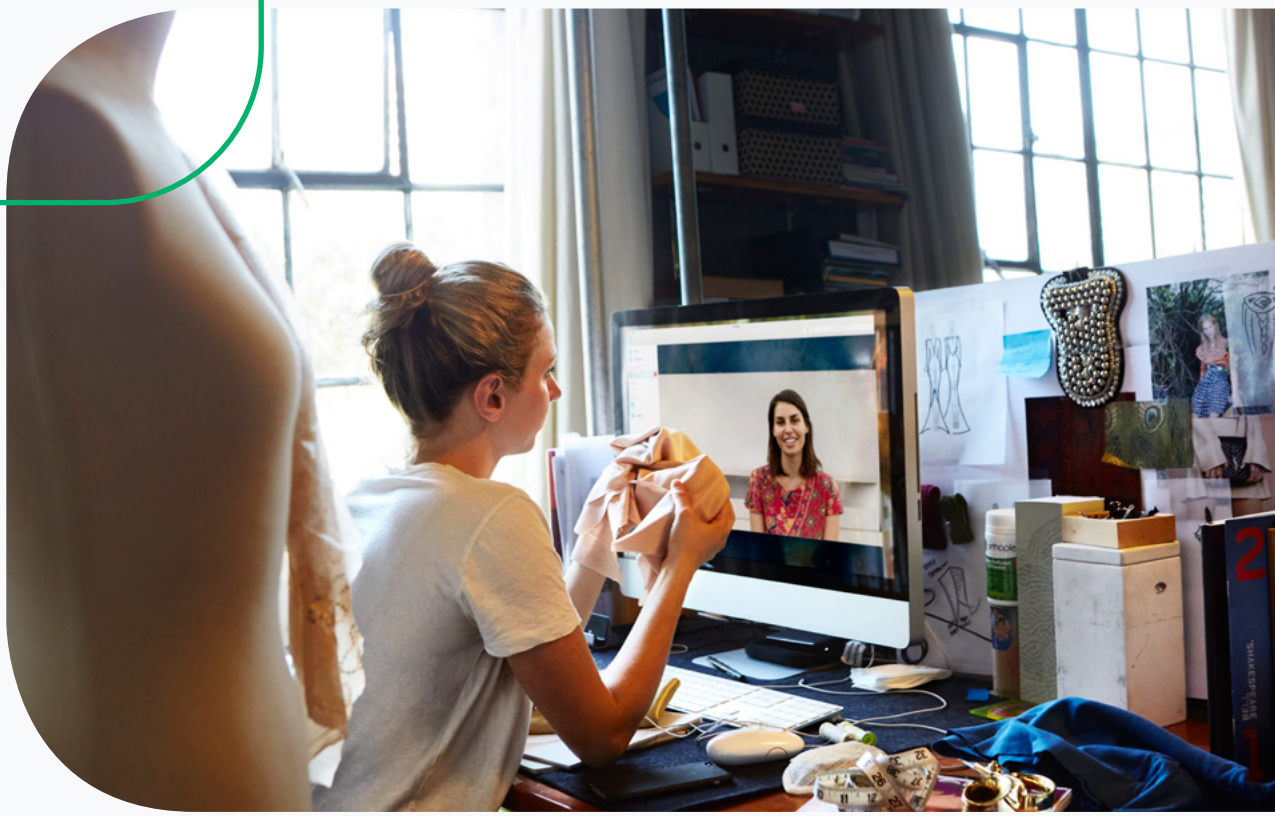
Helping bring it all together is the rapid adoption of SD-WAN, which can allow for more flexibility and simpler network management.

Especially now, when businesses are pressed to improve processes and customer experiences to meet changing expectations, investing in the right tools to better enable agility and responsiveness to customers and competitors can bring potential benefits.

* NBN Co's initial volume build completion commitment was that all standard installation premises in Australia would be able to connect to the **nbn**™ access network as at 30 June 2020. This excluded premises in future new developments which would be an ongoing activity for NBN Co beyond 30 June 2020. It also excluded a small proportion of premises defined as 'complex connections' – which includes properties that are difficult to access, culturally significant areas and heritage sites – where connection depends on factors outside of NBN Co's control such as permission from traditional owners, and where network construction to allow such premises to connect will be an ongoing activity of NBN Co beyond the build completion date.

^ **nbn** is a wholesaler and does not control costs charged by service providers. Customers should contact their preferred service provider to ask about availability and any fees and charges from their provider that may be applicable.

An end customer's experience, including the speeds actually achieved over the **nbn**™ broadband access network, depends on the **nbn**™ access network technology and configuration over which services are delivered to their premises, whether they are using the internet during the busy period, and some factors outside of **nbn**'s control (like their equipment quality, software, chosen broadband plan, signal reception, or how their provider designs its network).



The X Factor

'Everything-as-a-Service', or XaaS, is an approach to digital transformation that has the potential to help organisations tap into an entire ecosystem of capabilities to move the dial on their transformation agendas.

The term 'XaaS' recognises the infinite potential of this model to drive digital transformation, and it has gained popularity as the practice of servitisation has gained traction and shifted business priorities.

At its core, the concept of servitisation shifts company behaviour and processes to think more holistically about the value that can be created or lost as a customer, supplier or vendor engages with their brand, a purchase, a product, a service or support systems.

> **"Everything-as-a-Service' is the aggregation of a range of capabilities around software, hardware and business outcomes that empowers organisations to change the way they interact with both business and retail customers."**
>
> **David Wells, Executive Manager, Infrastructure Solutions, business nbn™**

For example, cloud-based software services are providing on-demand access to tools and technologies that can enable a range of business capabilities or operations, such as customer relationship management or enterprise resource planning.

This model provides organisations with access to preferred applications and technology that can be more quickly rolled out to offices, workers or business collaborators across many locations, while limiting the need to have the software available or accessible from a single controlled location or security managed VPN.

The power now sits with organisations to pick and choose the ideal technology solutions that meet their specific needs. An increase in the types and number of services offered this way means digital transformation is becoming readily achievable for more organisations, with 'Everything-as-a-Service', or XaaS, the driving force behind this movement.

Something for everyone

For businesses, there has been an evolution from ownership of various functions to consuming them as they are needed using the XaaS model.

Specialist service providers have created powerful solutions (with varying degrees of complexity, customisation and control) that businesses can access, rather than having to create and manage a particular function in-house. They've identified value in not just the software that's coded and sold, but the process by which it is bought and leveraged.

Over time, the types of services offered have built on each other and increased in scope and utility, leading towards XaaS. Some of the foundational ones are:[3]

1

Software-as-a-Service

This is the most common type of XaaS used by businesses, and sees applications move from software on a disk to remote access from the cloud. One of the major benefits of SaaS is that routine updates and upgrades are automatically available.

2

Platform-as-a-Service

Rather than sourcing and purchasing a range of tools needed to develop solutions, PaaS delivers a framework for developers that they can use to create and manage customised applications.

3

Infrastructure-as-a-Service

IaaS providers host infrastructure components needed to store and access business data, including servers and virtualisation technology, reducing capital expenditure on hardware. This is typically a self-service model, so the organisation is responsible for managing and maintaining applications, for example.

Today, though, there are virtually no limits to what's on offer in the XaaS model: examples in this growing category include Data-as-a-Service, Communication-as-a-Service and Security-as-a-Service.

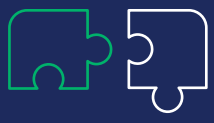
Benefits of XaaS across the organisation

1

Redistribution of resource focus

Redeploying organisational resources such as capital and people away from expensive infrastructure and management means they can be tasked with more productive activities to drive business growth.

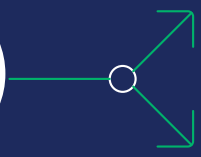
2



Risk mitigation

With many different services available on various private and public clouds, organisations can better tailor a solution that meets their needs, trial it, and adopt or cancel the service with low opportunity cost for failures. The risk of investing in and developing new solutions is potentially reduced and experimentation can be viewed as less of a luxury.

3



Operational flexibility

Flexibility and agility are critical for effective digital transformation. The ability to quickly adapt to changing market conditions and pivot to meet evolving business and customer needs is an imperative in today's environment.

4

Scalability

Perfectly matching organisational resources to changing internal and external demands is hard to forecast and could result in lack of capacity (lost opportunity) or over-capacity (wasted money). An XaaS approach can make it easier to strike a balance, with the ability to scale up or down as needs or opportunities shift.

Potential key network requirements

Embracing XaaS requires considering how you are enabling that approach from the network up to create a 'digital backbone' that supports digital transformation.

The process of digital transformation can be complex. For businesses looking to adopt a 'servitisation' mindset supported by the XaaS model, addressing the broader needs of a digital business such as cloud migration, network agility, and a remote or distributed workforce will require a robust and flexible network to help fully realise the benefits of the applications and services on offer.

Wholesale business **nbn**™ products are available to service providers with optional network features designed specifically for the needs of modern businesses.[$] business **nbn**™ solutions from a service provider can act as a tool for businesses to leverage to help take advantage of transformation opportunities as they arise.

[$] business **nbn**™ is not available on the **nbn**™ fixed wireless network. Not all providers offer plans based on the full range of wholesale business **nbn**™ products, product features and services. Availability of wholesale business **nbn**™ products, product features and services depends on an end customer's access technology and area. Ask your preferred provider if they offer plans based on these wholesale business **nbn**™ products, product features and services in your area.

"**"business nbn™ can provide capability in terms of wholesale bandwidth and network performance to help drive change in the legacy architecture of the network and adopt XaaS."**

David Wells, Executive Manager, Infrastructure Solutions, business nbn™

What are some essential components?[$]

1 Manage uploads and downloads

Cloud computing and applications that support changing business needs, such as the voice and video requirements of a remote workforce, may benefit from symmetrical upload and download speeds for an effective user experience to help reduce variation, drop-outs and interruptions.[ß]

2 Prioritise data paths

To help create greater confidence in the performance of certain applications and user types, and to help reduce interruption or lag when traffic is high, features such as a committed information rate (like the wholesale committed information rates offered by **nbn** to service providers) can be used and assigned by service providers to applications to help support real-time and mission-critical data needs on the network.[ß]

3 Enhanced service level agreements (SLAs)

When organisations rely on cloud-based applications and services delivered over the internet, reducing downtime can help them to avoid loss of revenue or reputational damage. Enhanced SLAs, like those held between **nbn** and service providers, can help enable faster response times if faults occur.

A best-fit network plan should be customised and tailored to the unique requirements of the organisation. Factors including speed, bandwidth, service and support, and budget need to be considered to provide the best connectivity solution to meet evolving business needs.

With business **nbn**™ solutions from service providers and a fibre-based connection upgrade option now available to the vast majority of Australian businesses (costs may apply), organisations can feel empowered to find a network solution, and a service provider to deliver it, that enables their digital transformation ambitions.[^]

[$] See disclaimer on page 8.

[ß] An end customer's experience, including the speeds actually achieved over the **nbn**™ broadband access network, depends on the **nbn**™ access network technology and configuration over which services are delivered to their premises, whether they are using the internet during the busy period, and some factors outside of **nbn**'s control (like their equipment quality, software, chosen broadband plan, signal reception, or how their provider designs its network). Satellite end customers may also experience latency.

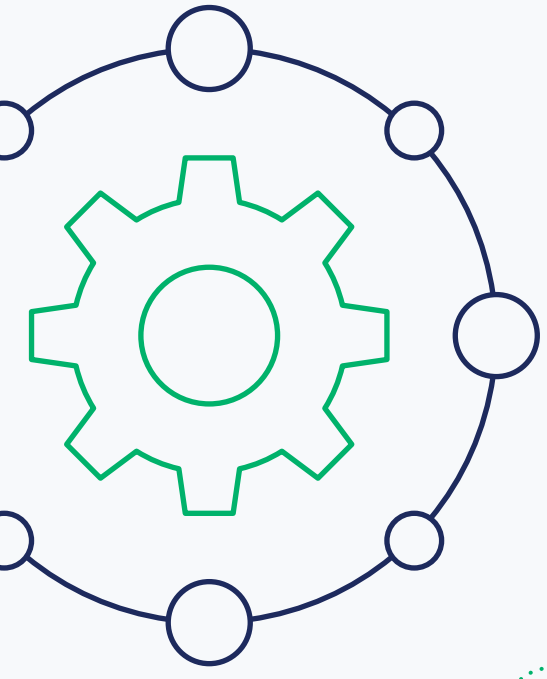
[^] See disclaimer on page 3.

Making progress

Digital transformation is on the agenda and closer to reality for more organisations than ever before. But it is a process that needs to be carefully considered and implemented as part of the strategic plans of an organisation.

XaaS places more services within reach, though random experimentation and adopting a range of services too quickly could negate any benefits to the organisation.

That's why it's important to start with network considerations, as setting a strong foundation, or 'digital backbone', can help prevent poor implementation and performance of XaaS applications or the need for band-aid solutions down the track. What additional considerations are at play?



Legacy infrastructure

Evaluate current IT and network infrastructure and related contracts to create a pathway to unwind arrangements that may no longer fit your needs as you consider XaaS opportunities.

Future network demands

Evaluate network service providers to find the best fit for the future vision of the organisation.

Security concerns

Cloud-based services and a distributed workforce have the potential to increase exposure to cyber security threats and data breaches if not properly managed, which makes ensuring network and user security crucial.

Organisational structure

Consider head office, branches, remote workers, suppliers, vendors and customers, and how they engage with the organisation and the network requirements to support them.

Ripple effects

Review how XaaS might transform customer and employee engagement across the entire organisation, and then align strategic priorities and resources to determine the best services to source and adopt.

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Find out more about business **nbn**™ fibre

Sources

1. Gartner Says Global IT Spending to Decline 8% in 2020 Due to Impact of COVID-19, Gartner (May 2020)
2. Can you meet customer demand for cloud-based computing?, PwC (2020)
3. SaaS vs PaaS vs IaaS: What's the difference & how to choose, BMC (June 2019)

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