

# Not all business data is equal

Getting the foundation right for digital transformation







### Key takeaway:

✔ Digital transformation is increasing, along with connectivity requirements and the amount of business data created and used. The right network solution is a critical piece of the overall technology puzzle.

The pace of digital adoption for small and medium enterprises (SMEs) accelerated during the onset of the COVID-19 pandemic in early 2020. Many businesses needed to rapidly scale technology investments in response to major changes to operations.

This included the adoption of new systems and software to do things like help support employees working from home, or to collaborate with customers and clients in new ways.

At the same time, the movement of applications and data to the cloud continued. The [Telsyte Australian Digital Workplace Study 2021<sup>1</sup>](#), conducted for **nbn**, found that 66 per cent of Australian SMEs use cloud computing applications or services.

But the deployment of more technology supporting distributed cloud-based applications and remote users creates more data in more locations. This can require business-grade network solutions to keep data, and business, moving.



# 76%

of SMEs have invested in technologies that have high connectivity requirements

And as the future of work and business takes shape, investment in technology is not slowing down. A [2021 IDG Pulse survey](#)<sup>2</sup> commissioned by **nbn** found one in two Australian business leaders it surveyed had plans to further accelerate the digital transformation efforts they made in the past year.

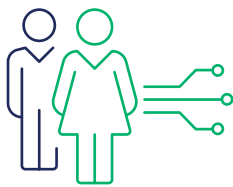
The Telsyte study<sup>1</sup> found that 76 per cent of SMEs have invested in technologies that have high connectivity requirements, with a further 12 per cent planning to.

Examples of these technologies include:

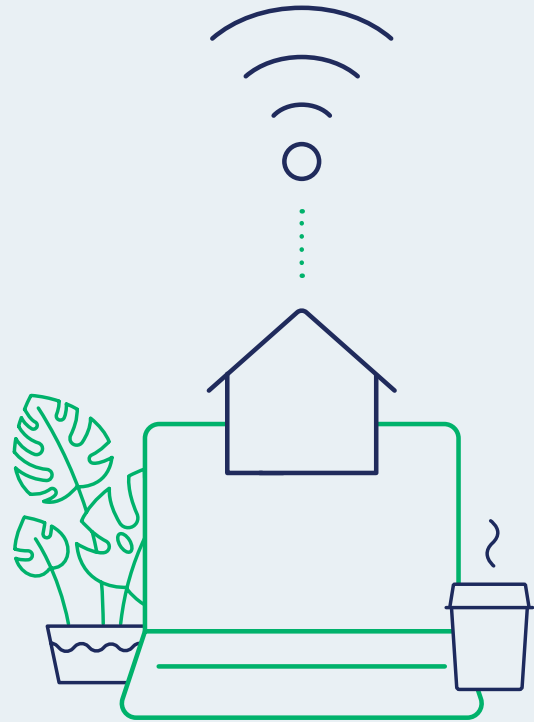
- Cybersecurity
- Data management
- VoIP
- Video conference
- Cloud platforms and applications
- Business Intelligence (BI)
- Artificial Intelligence (AI)
- Virtual devices

Network infrastructure can be critical as an enabler of effective connectivity and business data management. It sets the foundation for the types of network plans and solutions service providers can create and deliver for businesses.

The right network solution can help manage current data demands, as well as enable the agility that digital transformation and data growth may demand for business sustainability in the future.



**one in two** Australian business leaders plan to further accelerate the digital transformation efforts



## Not all data is equal

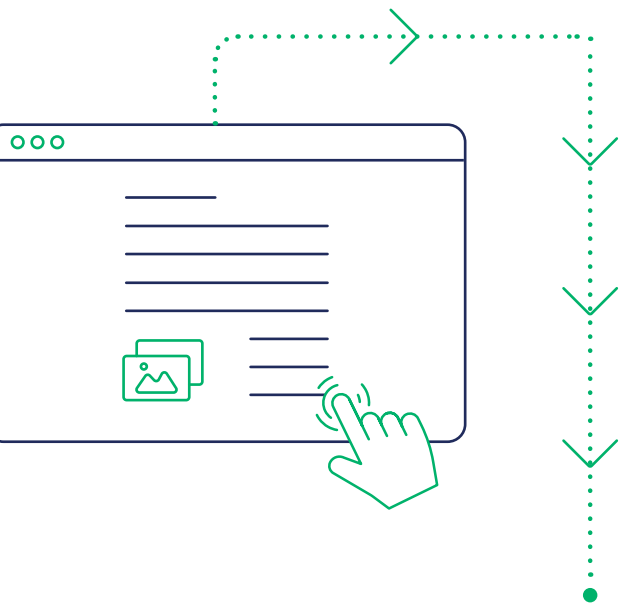
Understanding how data is used, where it lives and where it is accessed is key to creating an effective digital foundation for better connectivity and data management.

But not all data is the same, and the impact on business applications can differ widely between different data types.

### Key takeaway:

- ✓ Business data needs often aren't the same as home internet needs. It's important to think about how you want your connection to work for the type of work you do, how your team works and the way your customers expect to be serviced.

# The 3 key types of business data<sup>3</sup>



## 1

### Information-based data:

This is a category that often relies on data moving in a single direction, like downloading email or web browsing. Such applications are often designed to tolerate some latency and variation, as short delays in data transfer are usually not noticed and don't disrupt how the applications function.

'Best effort' network solutions are often the most economical option for these applications. business **nbn**<sup>™</sup> offers service providers options to create plans that leverage best-effort data for some or all of a business solution, depending on their customers' needs, with download speeds of up to nearly 1Gbps.

But it's important to note that like internet plans designed for home use, the performance of 'best effort' connections is more likely to be impacted by factors including the configuration used by the service provider and the activity of other users on the network.

### Best-effort data at a glance

#### Pros



Economical option



Designed for email and web browsing

#### Cons



Higher variability in speed than prioritised data



Higher latency than prioritised data



## 2

**Real-time data:**

This is where data needs an immediate interaction between two or more network end points, as is the case with phones, or sensors and actuators in industrial and engineering systems. Having an even transmission of data, with upload and download speeds running at the same rate, can help minimise connection issues that can trigger faults, create unplanned production downtime, or result in jittery connections when teleconferencing.

Compared to many residential services, plans powered by business **nbn**<sup>™</sup> include higher upload speeds, with options for service providers to deliver symmetrical solutions and prioritised data configurations.

## 3

**Mission-critical data:**

This is the highest priority data, where delays and dropouts can have serious business or safety consequences. Applications that have low tolerance for interruptions, or business processes where slow speeds have a major impact, fall into this category. Think instrumentation or robotics, transportation communications, or even EFTPOS and POS systems. Network features such as priority data, business-grade upload and download speeds\*, high network uptime and service levels should all be considered when thinking about how to support these applications. Service providers can access a range of business **nbn**<sup>™</sup> products and services that can be appropriate for these critical business applications<sup>††</sup>.

**Prioritised data at a glance**

## Pros



Lower latency



Data prioritised over 'best-effort'



Less variability in speed



Flexible modular or full plan solutions

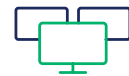


Wholesale speed options range from 15Kbps up to nearly 1Gbps

## Cons



Higher cost



May require higher specification devices on site



May require more advanced configurations and management from your service provider

# Why upload speed matters

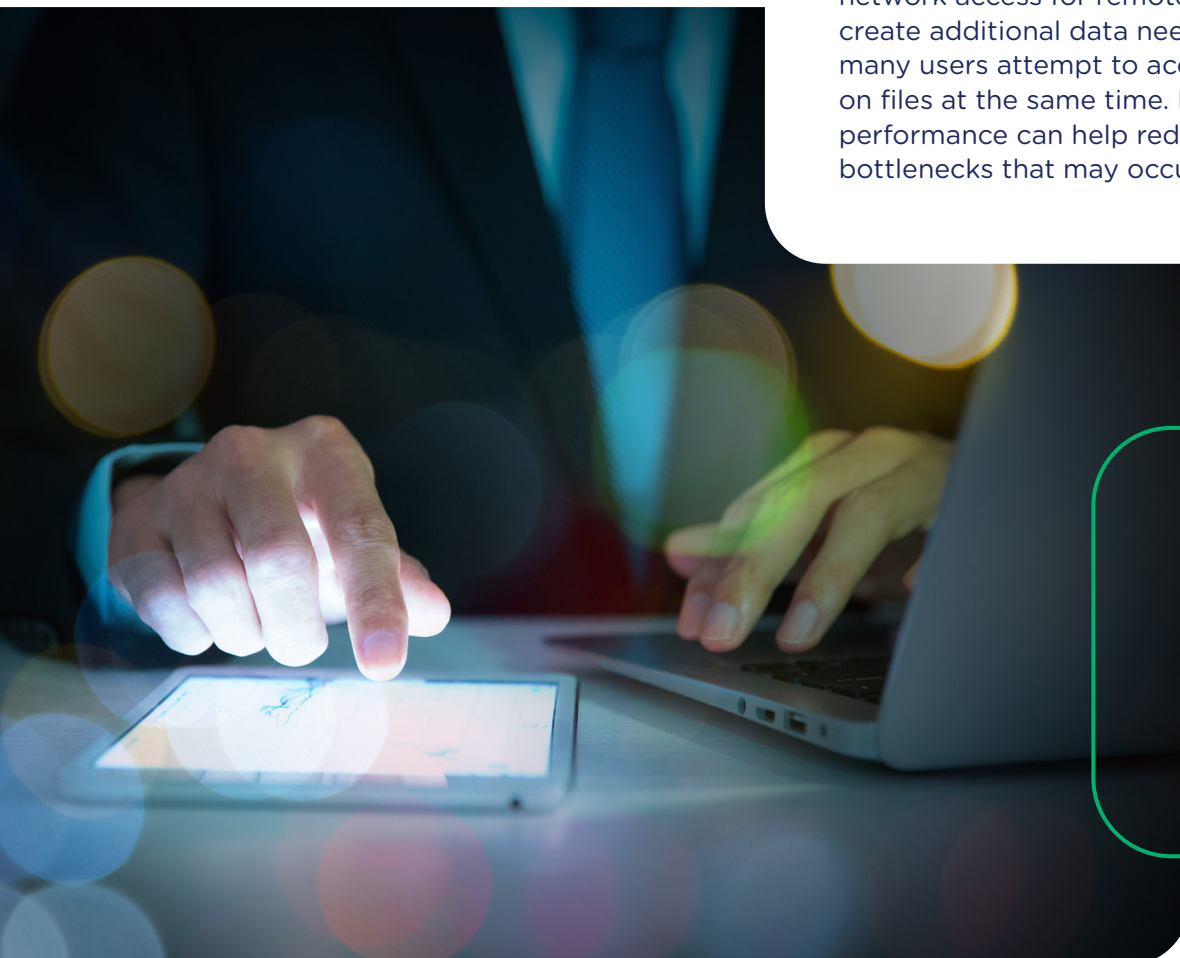
Download speeds are the headline number often promoted by internet service providers, but for business, upload speeds can be just as important. This can be especially true in the context of cloud-based services, for example, where large volumes of data are constantly being exchanged between the business' systems and its customers and users. It can also apply in situations where large data files are regularly being uploaded by different people in multiple office locations, or when collaborating with clients.

**Cloud applications:** With two-thirds of Australian SMEs using cloud computing applications or services<sup>1</sup>, data needs to travel to and from the cloud to be worked on, and then accessed by other users.

**Back-up and storage:** According to the Telsyte study, the most commonly used cloud-based service for SMEs is storage, which is used by 63 per cent of small to medium businesses<sup>1</sup>. Upload speeds can significantly impact the time it takes to transfer large amounts of data to cloud-based storage systems, potentially slowing business processes and creating inefficiency.

**Video conferencing:** Two-way communication relies on good upload and download speeds for high-quality voice and video calls, with minimum lag.

**Remote work:** Relying on VPNs to provide network access for remote employees can create additional data needs at head office, as many users attempt to access and collaborate on files at the same time. Better network performance can help reduce potential bottlenecks that may occur with a VPN set up.



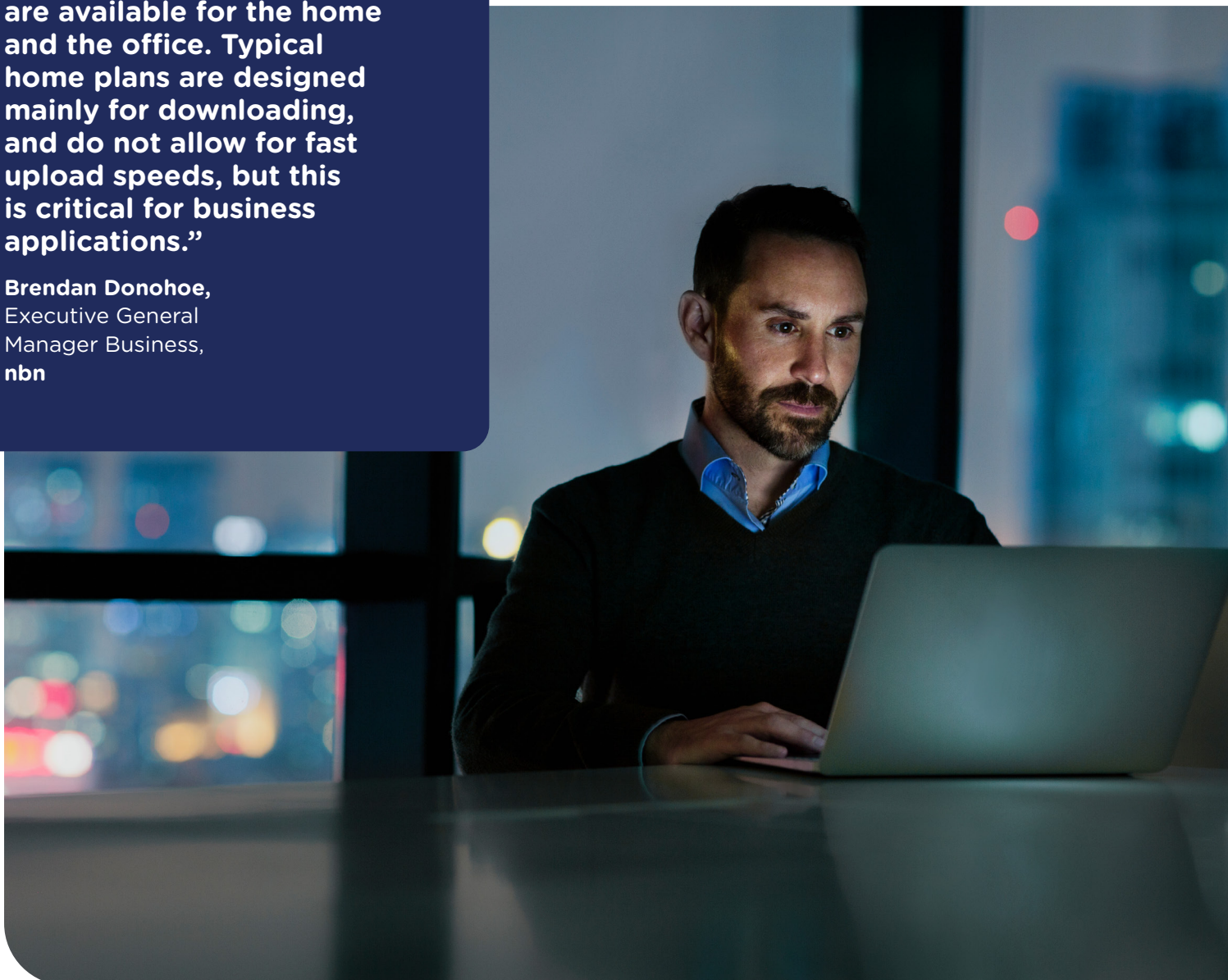
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**Businesses need to consider the different types of plans and options that are available for the home and the office. Typical home plans are designed mainly for downloading, and do not allow for fast upload speeds, but this is critical for business applications.”**

**Brendan Donohoe,**  
Executive General  
Manager Business,  
**nbn**

**nbn** has a range of wholesale products service providers can use to build business plans. Make sure you are talking to your provider about both your upload and download speed when selecting the plan for you.

Compared to even high-speed home internet plans, plans powered by business **nbn**<sup>™</sup> can offer upload speeds closer to their headline download speeds. Options range all the way up to **nbn**<sup>™</sup> Enterprise Ethernet<sup>™</sup> plans, which can offer the same speeds for both upload and download, up to nearly 1Gbps.

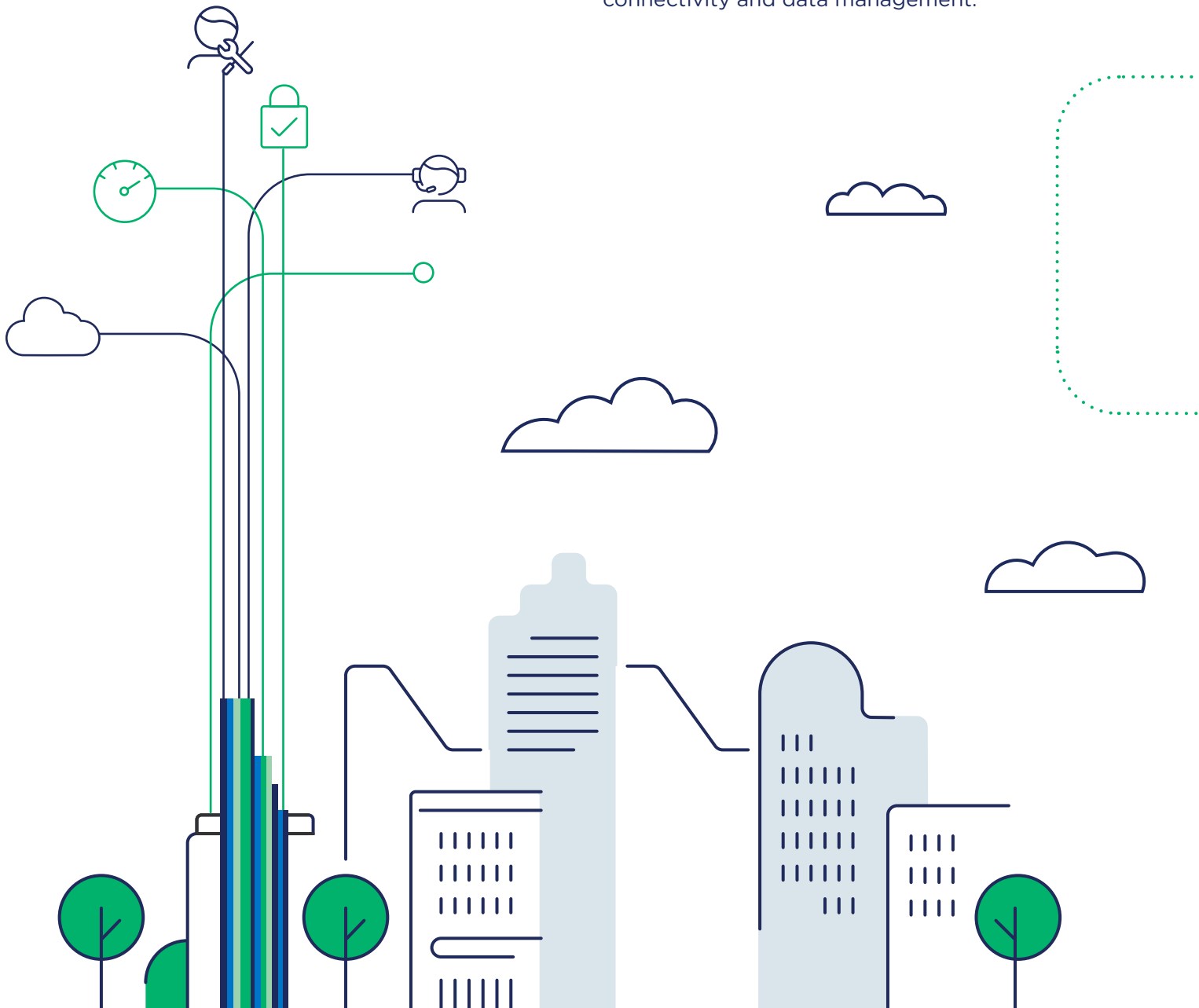




# The right combination of network features

The network connecting the technology and systems used in a business provides a digital foundation for accelerated business transformation, now and into the future.

business **nbn**<sup>™</sup> provides a range of wholesale features for service providers including both eSLAs and service support through the Melbourne based business **nbn**<sup>™</sup> Operations Centre. business **nbn**<sup>™</sup> services can also provide priority data options and business-grade upload and download speeds\* that service providers can use to enable business connectivity and data management.





# Assessing business needs

## Key takeaway:

✓ Assess your data demands and network requirements based on factors including the types of applications used, the number of users, and when you and your team and clients need access.

Just as there are different types of data, each business has different requirements when it comes to connectivity and data management. Understanding these unique needs helps create both an effective data management strategy, and implement efficient network infrastructure.

The following questions can help form a framework for determining the network requirements of your business:

### Applications

- What type of applications are used?
- What is their priority?
- How critical are they to business operations and continuity?

### Data intensity

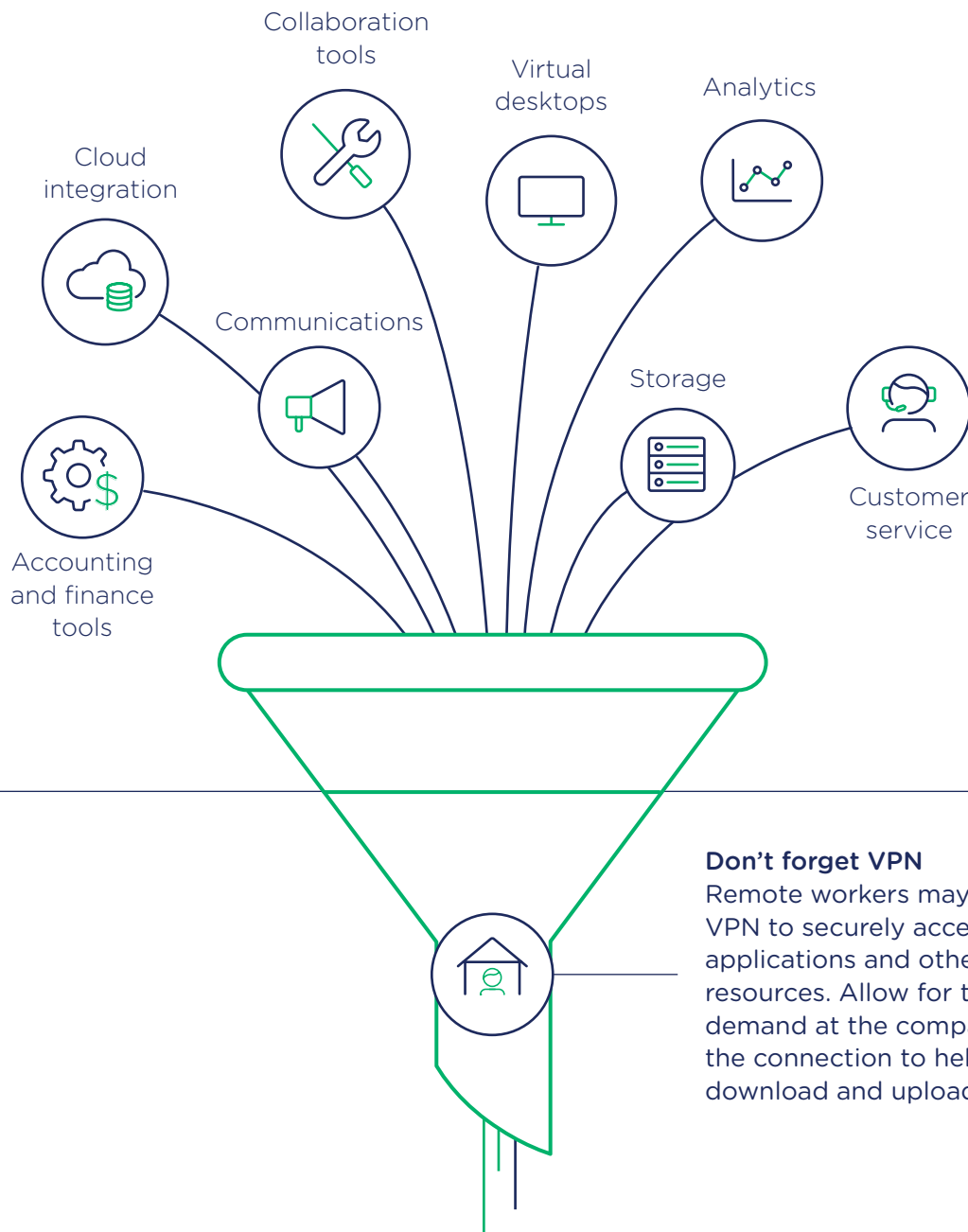
- How many users are on-site?
- What are the data needs of each user?

### Access

- When is data and the network being used across the business? Are all your users accessing the network at the same time?
- Could peak usage times cause congestion and interrupt applications?

The makeup of the ideal network infrastructure for your business will be determined by the volume of applications in each priority category and the intensity of their usage across the business at different times.

## Most popular cloud-based applications for SMEs<sup>2</sup>:





**Key takeaway:**

✓ A robust network foundation can keep your business flexible by giving you the opportunity to quickly adjust your network plan and adopt new technologies in changing circumstances.



## The role of the network

The network can play a very important role for digital businesses, or businesses transforming to meet the changing needs of customers and employees.

It has to meet the current requirements of the business and be capable of providing a foundation for growing data needs in the future.

**Upload speeds\***: Efficient business connectivity needs high upload speeds that can help support data transmission for cloud-based computing and video conferencing. Plans powered by business **nbn**<sup>TM</sup> have higher uploads speeds than comparable home **nbn**<sup>TM</sup> plans

**Symmetrical speeds\***: For businesses needing symmetrical download and upload speeds to meet their connectivity and data requirements, symmetrical network services ranging from 15/15Kbps to close to 1000/1000Mbps are available to service providers to create customised plans.

**Prioritised data\***: After identifying and classifying the various data types in the business, a service provider can prioritise certain data applications with committed information rate services on plans powered by business **nbn**<sup>TM</sup> to help ensure connectivity, and help reduce disruptions or opportunities for slow speeds.

**Enhanced Service Level Agreements (eSLAs)†**: Downtime can be damaging for business productivity and reputation. business **nbn**<sup>TM</sup> offers retail service providers business-grade support including a dedicated Melbourne based business **nbn**<sup>TM</sup> Operations Centre. The centre supports providers with connection and assurance support, and additional enhanced service level agreements can be purchased by service providers to have shorter network rectification target times (compared to home **nbn**<sup>TM</sup> plans)<sup>††</sup>.

### Powered by business **nbn**<sup>TM</sup>

All service providers who provide business plans based on business **nbn**<sup>TM</sup> wholesale product and service features can be identified with this logo:

powered by



Look out for this logo when you assess and choose your plan to ensure it is built on our wholesale business-grade features.

## business **nbn**<sup>TM</sup> by the numbers

Wholesale network speeds offered to retail service providers for **nbn** high-speed home internet plans:

### home **nbn**<sup>TM</sup> High Speed Plans

Download Speed* (Mbps)	Upload Speed* (Mbps)
100	20
250	25
1000	50

Network speeds offered to retail service providers for plans powered by business **nbn**<sup>TM</sup>:

### business **nbn**<sup>TM</sup> Ethernet Plans

Download Speed* (Mbps)	Upload Speed* (Mbps)
100	40
250	100
1000	400

These plans include committed information rates to enable prioritised data, add-on services and enhanced service level agreements (eSLAs)<sup>†</sup> between **nbn**<sup>TM</sup> and service providers.

### business **nbn**<sup>TM</sup> Enterprise Ethernet\*\* Plans

Download Speed*** (Mbps)	Upload Speed*** (Mbps)
100	100
250	250
500	500
1000	1000

These plans include premium coordinated appointments, options between Class of Service and varied data priorities, and network performance targets.





## Matching connectivity and data needs with network infrastructure

Data demands on businesses will continue to mount.

According to the [Department of Industry, Science, Energy and Resources](#)<sup>5</sup>, “the generation and use of vast amounts of data is a new source of market power in the digital economy”.


So businesses with a clear view of their data requirements, supported by robust network infrastructure, are likely to be better placed to accelerate digital transformation now, and in the future.

While every business has different connectivity and data needs, business **nbn**<sup>™</sup> offers a range of wholesale features and options that are designed to enable businesses of all sizes to support their current and future data needs.

Using business **nbn**<sup>™</sup> wholesale services as a foundation, service providers can tailor network features including higher upload speeds, symmetrical data speeds, prioritised data and enhanced service levels to provide solutions that match the requirements of individual businesses.



# Create the right network foundation to manage your data effectively with business **nbn**<sup>TM</sup>



## Sources

1. <https://www.nbnco.com.au/content/dam/nbn/images/blog/telyste-australian-digital-workplace-study-2021-for-nbn-co.pdf>
2. [https://www.nbnco.com.au/content/dam/nbn/images/blog/business\\_nbn\\_idg\\_pulse-survey.pdf](https://www.nbnco.com.au/content/dam/nbn/images/blog/business_nbn_idg_pulse-survey.pdf)
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5. <https://www.industry.gov.au/data-and-publications/australias-tech-future/data/what-are-the-opportunities-in-data>

## Disclaimers:

- \* An end customer's experience, including the speeds actually achieved over the **nbn**<sup>TM</sup> network, depends on the **nbn**<sup>TM</sup> network technology and configuration over which services are delivered to your premises, whether you are using the internet during the busy period, and some factors outside **nbn**'s control (like your equipment quality, software, broadband plan, signal reception and how your service provider designs its network). If your service provider has not selected the 'Class of Service - High', the speeds you experience may be affected by contention on the **nbn**<sup>TM</sup> network, particularly in busy periods.

- \*\* business **nbn**<sup>TM</sup> Enterprise Ethernet is only available in the **nbn**<sup>TM</sup> Fixed Line network footprint and at limited premises served by the **nbn**<sup>TM</sup> Fixed Wireless and Satellite networks. Costs may apply; customers should contact their preferred service provider to ask about availability and any fees and charges that may be applicable.

- \*\*\* Regardless of the retail service you purchase, the actual wholesale speeds delivered by the business **nbn**<sup>TM</sup> Enterprise Ethernet product will be no more than 952Mbps due to equipment and network limitations.

- † Rectification time may vary depending on the location of premises. All times refer to the times offered by **nbn** to service providers and may differ from the times offered by providers to end customers. Not all your faults with a retail service will relate to a fault with the **nbn**<sup>TM</sup> network. Faults may relate to matters in a provider's network, the end customer's premises equipment or network resources being accessed.

- †† These wholesale service features are offered to service providers. The service options providers make available to their end customers depend on what they have productised and the retail solutions they offer.

- § Network availability target offered to service providers and measured across all Enterprise Ethernet services.