

**The high-uptime  
secure WAN  
that's easy to  
manage.**

### Pressed for time?

To discover how SD-WAN will make a real difference to your business in less than two minutes, follow the page numbers in the stopwatch icon.



### Dying for detail?

To delve into the tech that makes SD-WAN the secure, high-uptime network that's ready for the future, go to the page numbers in the magnifying glass icon.

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# Why settle for half a product?

When it comes to choosing a network supplier, we reckon the old-school telcos are selling half a product. Even if the technology's fine, customer service and project management fall short.

We're proud of how we do things differently. Our customer service team is right here in Australia, and we project manage every WAN rollout so you're not left fending for yourself.

Of course, there's more to Macquarie Telecom SD-WAN than exceptional service. We introduced the technology to Australia back in 2017 and today, with over 7,000 sites rolled out, our expertise leads the Asia Pacific region.

Combined with a smart multi-path network structure that virtually eliminates downtime, simple visibility and control over your bandwidth at an application level, and built-in security standards that prepare you for the future, SD-WAN is the network that won't hold you back.



# Five ways your business will benefit from SD-WAN.

# X5

## Speed

SD-WAN sends your data across two or more separate links, which means low uptime and fast, consistent speeds.



## Security

We'll take away the demand and complexity of managing your own network security, with tools and people to make it easy.



## Control

Free up time and resources using our simple control panel to monitor and manage your entire network.



## Value

A managed hardware and software lifecycle, proactive security patching and meaningful network insights make SD-WAN a rock-solid investment.



## Service

Whether you're migrating a whole network or troubleshooting a site, you'll be working with real people right here in Australia.





## High speed + high uptime. Multi-path makes it happen.

When a traditional network slows down or has an outage, productivity takes a hit. Sometimes a big one. SD-WAN's multi-path technology doesn't leave all your data eggs in one basket.

### **An incredibly resilient network that takes care of itself.**

At the heart of the SD-WAN concept is the ability to use more than one network link. The system chooses which link to send every packet of data across by measuring the real time performance of each link hundreds of times per second. It then assembles the packets seamlessly at the other end. What does this mean in practice? At every given second, your data is always travelling along the fastest path, resulting in unmatched data speed and stability.

### **Clever tech that boosts performance.**

SD-WAN provides maximum resilience when you use multiple links, but for sites with a single link, there's still plenty of technology at work to give you powerful performance. Jitter buffering, negative acknowledgement and forward error correction all work together to mitigate problems at single-link sites. It happens automatically on-demand, for any application that can benefit from it. The results? A seamless user experience, even if there's a temporary network issue.

### **Uptime, all the time. (Well, 99.99%).**

SD-WAN uses its multi-path design to virtually eliminate network downtime. By choosing two different network types and amalgamating them, there's always an instantaneous alternative route for your data to take if one network has an outage. And the failover happens automatically, so the instant one network falls over, the other one picks up the whole load.

# Security

It's seriously bulletproof.

## A flexible approach to security.

We've built SD-WAN around strong security options, giving you the choice of integrating your existing security services or using our own managed security. Our network is security agnostic, and ready to work with your current environment.

## Cloud security sets you up for the future.

These days, business applications often sit in the public cloud, taking away the complexities of managing applications and the local infrastructure needed to run them.

It's now time to manage the security of your network the same way. Our technology combines SD-WAN at the edge with customisable options for a next-generation firewall provided by Fortinet or a SASE framework powered by VMware. For your business, this means the assurance of cloud-based security today, along with readiness for SASE (secure access service edge) when you choose to deploy it.

## We'll help you build a security roadmap that leaves nothing to chance.

Security is at the core of everything we do at Macquarie Telecom. With over half of Australia's Federal Government data residing in our data centres, our expertise and experience are proven.

When you choose SD-WAN, we'll help you build a security roadmap that centres around a staged move to the cloud at the right time for your business..



## Focus on what your business does best.

### If you have control over your network, everything just works better.

SD-WAN is built around making it easy to see what's going on in a way that makes immediate sense, so you can troubleshoot quickly and make data-driven decisions about the future.

### Operational efficiency plus quick incident resolution.

SD-WAN's online tools make it easy to see how your network's performing, using clear dashboard graphics. Green means good performance, amber is fair, and yellow means poor. Whether you're looking at the performance of a specific site, application, or aggregated data pipe, you can choose high-level or in-depth data to inform your operational decisions and reduce the time it takes to resolve incidents.

It's simple to run one-off or recurring reports to see the top applications and top talkers across your entire network, helping you make informed decisions or detect anomalies.

### App-level prioritisation: the fastest bandwidth for your critical apps.

These days as cloud consumption and SaaS become the norm, traditional quality of service is no longer adequate.

Some applications on your network are going to be business-critical: think real time voice calls, video conferencing and other business critical applications. Others are much less important: general network updates, personal streaming, and periodic backups.

We've built our SD-WAN network to recognise over 3,500 applications automatically, making it easy to prioritise which applications get priority so the important ones aren't slowed down by anything that's non-critical. This means less headaches for your IT team, and a better experience for everyone using your network.

### Fast, foolproof site rollouts and updates.

Our templates and one-touch deployment make it easy to roll out new SD-WAN sites or push updates out to existing ones. It's all completed with a few clicks, with no need for on-site technicians.

# Control



# Value

## The efficient network that saves you money.

**High availability and fast resolutions mean productivity for your business.**

The Macquarie Telecom SD-WAN network is designed around high availability. Of course, we can't claim zero downtime, but in practice our multi-path technology combined with jitter buffering and forward error correction deliver incredibly low downtime for your critical sites. In fact, many of our customers have never had a site outage.

Of course because SD-WAN is fully managed, we'll be in touch as soon as there's a problem on your network. And we'll keep providing updates as we work through the problem, until it's resolved.

**A hardware and software lifecycle that's all taken care of.**

When your SD-WAN network is managed by us, you can say goodbye to the cost and administrative commitment of keeping hardware spares on-site. We'll do all that for you, and deliver them on demand according to your agreed SLA or SLG.

We'll take care of your firmware lifecycle too. Whenever there's an update, bug patch or vulnerability, we'll inform you and manage the appropriate rollout.

**Future-ready: insights and scalability that set you up for tomorrow.**

SD-WAN's detailed reporting at an app level doesn't just happen in real time. An array of reports across various time periods can provide you with granular data to help you make longer-term decisions about your network.

We've built our SD-WAN network with scalable architecture, so you can modernise and transform your application stack through secure internet access for SaaS applications.

**Security that doesn't stretch your resources.**

By integrating easily but comprehensively with a wide array of managed security offerings, we'll ensure that your network and users are protected from security threats – cutting down costly downtime, data loss and cyber attacks.

And with a security-agnostic network, you can make decisions about whether you maintain your existing security stack or move to ours – maximising the investment you may have made in existing systems.



From migration to management, our service is unmatched.

# Service

If you've worked with an old-school telco, you'll know that real service is often replaced by self-service and AI. We believe that when businesses need help from their telco, they need a real human.

## Unmatched experience in SD-WAN.

Since we launched SD-WAN in Australia in 2017, we've deployed over 7,000 SD-WAN sites across Australia. In the process, we've migrated over 600 legacy networks over to SD-WAN. This makes us the most experienced SD-WAN network provider in the Asia Pacific region.

## Speed, efficiency and accuracy for your migration.

Every network is unique. Every migration has taught us something new, and as a result we've built robust, efficient migration processes. What does this mean for you? First, we'll migrate your network fast. Second, we'll make sure every detail of your migration is captured precisely, so the outcome for you is right, the first time.

## Project management that's always on the front foot.

At Macquarie, we use tightly integrated systems and thorough automation to provide a proactive managed service. This means your IT people can focus on more important things, like modernising applications or internal projects centred around a better end user experience.

## An on-shore team that works together.

In our Hub, our customer service, NOC and solution architects all work together – shoulder-to-shoulder in our Sydney office. They work alongside our certified delivery engineers and domain architects to deploy and manage your SD-WAN network. Our approach is very different to the traditional telcos.

We don't do  
**SD-WAN** by halves.

# 7,000+

7,000+ sites installed across  
Australia = more experience  
than any other telco.



# Collaboration

“You have to work with a company that wants to understand you. That was absolutely critical. Ben from Macquarie understands what our business is doing and brings in their technical guy regularly to give us an overview of what they’re doing at the moment. So it’s a real collaboration.”

Open Minds

Open Minds community care needed a network that would be quick to deploy to new sites, while lowering their ongoing infrastructure maintenance costs.



**99.9%+ guaranteed network uptime,  
backed by our multi-path link design.**

99.9%



# 30k

Monthly reduction in network costs

“We’ve had zero outages since we’ve migrated across. As far as savings are concerned, we’ve reduced our bills by around 30%, and the quality of our service has increased, too.”

**Carways**

Carways road transport needed a stable network that wouldn’t be plagued by slow data and frequent downtime. Alongside that, they were looking for a way to connect new remote offices without any delays.

**95% of calls are answered in less than 1 minute, by our call centre right here in Australia.**





# Visibility

“With more of our people using their mobile as a wireless hotspot at home, FleetView has successfully prevented bill shock – something we used to encounter often prior to our move to Macquarie.”

Uniting WA

Uniting WA community care have more important things to do than think about their network. They needed a solution that would keep things simple and adaptable.

# Other telcos have guesswork. We have Kate.

## People learn best from people.

We believe that providing incredible online tools to manage your SD-WAN network is only half the story. Giving you real life training is the other half. That's why we offer face to face training to anyone in your business, whenever they need it.

## Training that puts you ahead from day one.

When you migrate your network to Macquarie Telecom SD-WAN, we'll run monthly training sessions for the first three months.

To start with, we'll walk you through how to monitor your network – introducing our QoS reporting, service problem diagnosis, managing data consumption, and looking after the health of your equipment. Then we'll work through how to configure your devices and customise your business policies. We'll follow that up with a detailed session on testing and troubleshooting, and then wrap up with an overview of SD-WAN's reporting capabilities.

## A helping hand, on demand.

We know that the need for training doesn't end when your migration's done. That's why dedicated training is on hand whenever you need it. Whether you have new starters, existing staff who need to be upskilled, or just need refresher training, Kate and her team will be delighted to help you.





# The SD-WAN platform.

## Edge.

An SD-WAN Edge is a physical or virtual appliance we deploy on site or within a private or public cloud (like Azure, AWS or GCP).

Edges can serve small home or retail environments, large office sites or multi gigabit data centres. Whatever the use case, the technology and functionality are the same across any type of Edge.

Whether the Edge is virtual or physical, it provides optimised connectivity to private, public and hybrid applications. And most importantly, it performs the features that make SD-WAN different to traditional networks: deep packet inspection, application and packet steering, end-to-end quality of service and performance metrics.

## Gateways.

### Owned and managed by Macquarie Telecom.

Macquarie Telecom gateways are deployed within our Point of Presence locations, right across Australia. We choose locations strategically, making sure they're close to our customer sites and upstream peering locations.

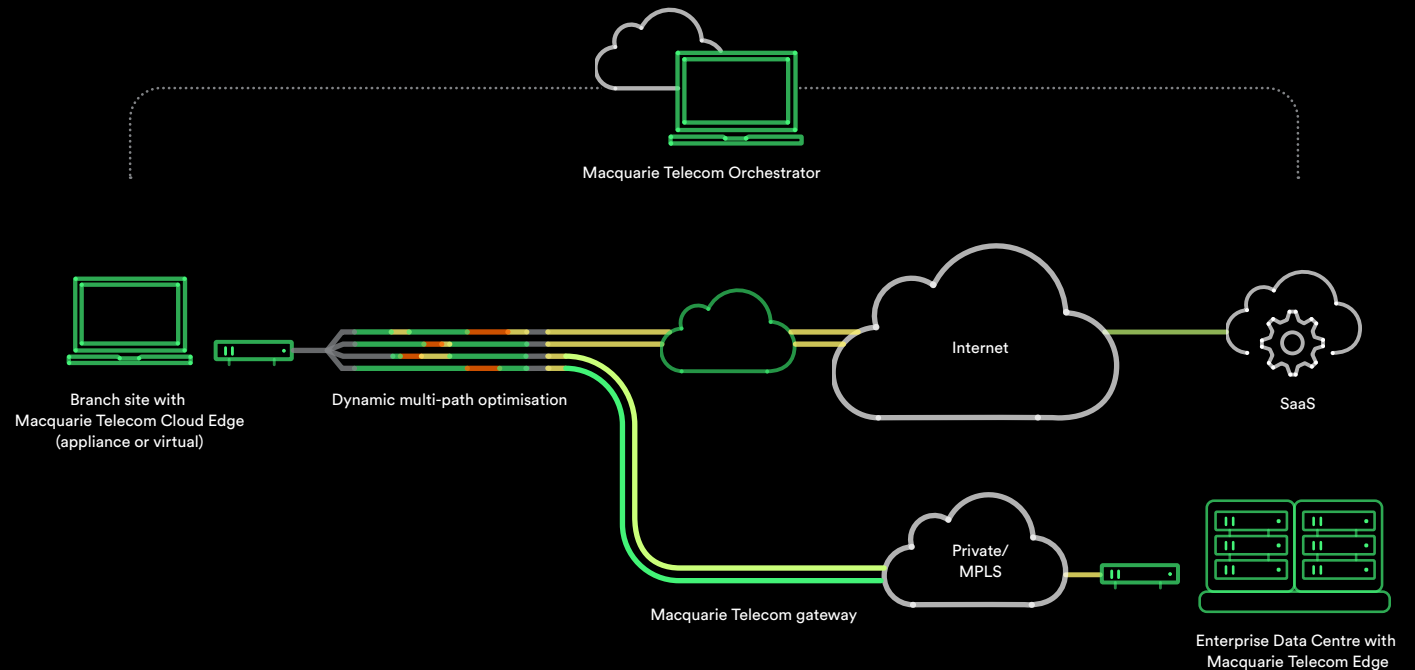
Our gateways provide quick, secure and seamless access to our private backbone network, SIP infrastructure, or your legacy enterprise sites. This means you'll be assured of stable routing between capital cities, and SIP infrastructure which provides access to the PSTN network or any legacy sites you're running that are yet to migrate to SD-WAN. They also offer access to our own data centres for private and public cloud connectivity.

And last but not least, you'll always have the assurance that security is managed rigorously and patches are deployed as soon as a threat is identified.

### Built to perform, ready to grow.

Hosting our own gateways allows us to use Layer 2 carrier access links on site. This enhances security, keeps latency as low as possible and ensures traffic traverses the optimal path to its destination. We'll pick the carrier and bandwidth to meet your requirements. This is particularly useful where critical sites require access from alternate carriers for high availability.

Critical SD-WAN features like bi-directional quality of service, link bonding and remediation also sit within our gateway network. Because we host and manage our own gateways, we can easily scale your network up on demand – whether you're running ten sites or thousands. And just as importantly, support is all managed within our walls, so there's never any need to escalate gateway issues and wait for external technicians to help.





## The Orchestrator.

### Micro control. Macro simplicity.

#### Everything in its right place.

The Orchestrator is a single pane of glass that offers visibility, control and management of your entire network. Through it, you can see the performance of any site in real time, or home in on individual links to monitor or troubleshoot them. And role based access control makes it easy to set policies limiting most end users to read-only access, reserving more comprehensive change access for advanced users.

The Orchestrator is also home to SD-WAN's app prioritisation controls. On a single screen, you can track which apps are using the most bandwidth at any site, and decide how to prioritise them. That means casual users streaming YouTube will no longer bring important video conferences, voice calls or realtime applications to a standstill.

The Orchestrator also provides centralised enterprise-wide installation and configuration of new SD-WAN sites, with your chosen policies and settings, and provides single-click provisioning of virtual services at the branch, in the cloud, or within your enterprise data centre.

#### Network performance analysis made easy.

Knowing how your network is performing shouldn't be complicated, and it shouldn't demand excessive expertise.

We've built a Quality of Experience panel into the SD-WAN Orchestrator, so you can see how your network's performing in real time.

Application performance is presented as good (green), fair (yellow) or bad (red). You'll see this for every individual link to a site, as well as a combined score for the site's aggregated data pipe. By clicking on a link, it's easy to drill down into individual app performance, so you can quickly understand network performance variations as soon as they occur.

It's also easy to generate ad-hoc or recurring reports giving you network-wide insights such as the top application in use across the entire network, or which device is using the most bandwidth.

#### Make changes in minutes, not weeks.

Our SD-WAN Orchestrator is all about making traditionally slow processes lightning-fast.

The Orchestrator lets you create profiles and standardise configurations, which means faster resolution of network incidents and network-wide deployment of critical updates.

With a traditional MPLS network, these changes could take weeks, and required on-site technicians at every location. SD-WAN makes the same thing happen with a couple of clicks.



High-uptime, high speed.  
All thanks to multi-path.

Eliminate network  
downtime.

Macquarie Telecom SD-WAN uses multi-path technology to bind two or more data services together, treating them as a single data pipe to maximise speed and stability. It chooses which link to send each packet of data across by measuring the real time performance of each link hundreds of times each second (and automatically compensating for packet loss, latency, jitter and capacity). Then it simply assembles the packet at the other end.

Critical real time packets are sent over both links simultaneously, to ensure they have a high probability of getting to their destination fast.

The Edge is smart enough to prioritise data packets according to their application: so a voice call or video conference, which demands very low latency, will take priority over emails or an OS update.

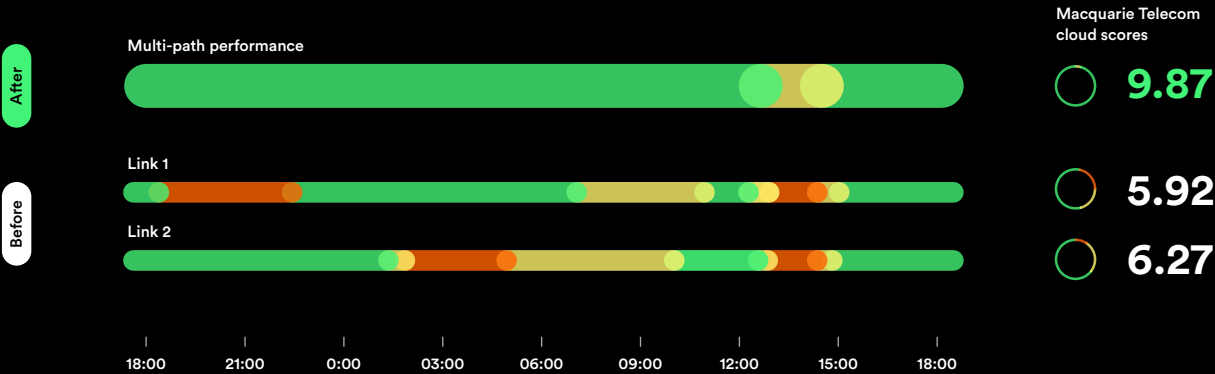
By using more than one link across different technologies, SD-WAN virtually eliminates network downtime. And if you only have access to one land-based network, we can use 5G links to provide the additional bandwidth and resilience you need.

Multi-path offers the ultimate failover, too: if one of your links does fall down, the Edge instantly routes traffic over the alternate link, so you can keep doing business.

Deep application  
recognition.

Macquarie Telecom's deep application recognition identifies over 3,500 applications and sub applications using a combination of AI and SaaS application database referencing.

The Orchestrator lets you track trends in application use over time, so it's easy to understand usage patterns today — and make sound network plans for the future.



## Device rollout? You're looking at it.

### Deployment, without the delay.

One of the challenges of traditional networks is the time they take to roll out. Sometimes they can take months, leaving you to work around technicians and downtime schedules.

SD-WAN can be installed in days. We use a template approach that captures all the important configuration items for various types of sites. Beyond the scope of these templates, custom device configurations or policy changes can all be performed remotely within the Orchestrator.

Deploying a new site installation simply requires someone to plug in the Edge. Once it automatically authenticates, it pulls down its configuration from the Orchestrator and it's ready to go.

Sometimes, you'll need to set up a site at short notice when there's no land network available. SD-WAN can be deployed over 5G, so your pop-up store or temporary construction site can have fast, secure access to your business network.

### Policy distribution made painless.

SD-WAN makes it easy to distribute business policies remotely to every Edge across your organisation, taking away the need for box-by-box configuration.

Transport group abstraction means configurations can be agnostic of hardware or physical interfaces, and you can assign specific policies to custom-defined groups, too.

This creates standardisation across your network, making it easy to troubleshoot faults and isolate the root cause quickly.



**Dealing with your  
telco shouldn't feel like  
a wild goose chase.**



# Local service. Because off-shore's just not on.

**When it comes to real customer service, there are no shortcuts.**

We're very proud of our customer service team. For a start, they're based right here in Australia - in the heart of our head office in Sydney.

The guys and girls in our team don't just answer phones. They're skilled problem solvers. Everyone who works in our Hub loves networks and technology, and they take pride in nailing every interaction they have with a customer. Where traditional telcos depend on scripts, our people draw on their own experience and knowledge (and work together to help each other, too).

When you call us, you'll usually be answered in under a minute, and you won't have to claw your way through a maze of voice prompts to get through to a human. (Yep, that part's very UnTelco.)

With an NPS (Net Promoter Score) of +75, our customer service is far ahead of the old-school telcos'. But we never rest on our laurels - we listen to every piece of feedback (and usually call to check in if something didn't meet your expectations) and we're always striving for an even higher score.

If dealing with your telco always feels like a wild goose chase, we'd love to show you something completely different.



**Our Net Promoter Score: +75.**



**95% of calls answered in less than 1 minute.**



**Australian-based call centre.**

# We're all in this (office) together.

## Old-school telcos like to shuffle you from A to B. (And then to C, D, and E.)

Traditional telcos often prefer to minimise their customer service investment by outsourcing and offshoring their call centres. This makes things hard for their customers, because different functions are often in completely different locations.

When you're calling an old-school telco for help, it's not uncommon (when you finally get through to a human) to be told that your problem will be sent to someone else to solve.

That might mean a ticket is put in a lengthy queue for an engineer elsewhere to read. Or it might mean an email is sent for someone else to call you back... eventually.

More often than not, it'll be a week or more before you hear back from someone and – with a bit of luck – get your problem sorted out.

## All our people work alongside each other, to solve your problems fast.

Here at Macquarie Telecom, you'll find our customer service people working right beside our network operation centre (NOC) engineers and solution architects.

You'll also find our certified delivery engineers and domain architects working in the same office as customer service.

What does this mean? When you call us, the person who answers the phone will use their expertise to help solve your problem. But if they need the knowledge or experience of an engineer, they can walk over and solve your problem together.

That means your problem will be solved fast and the right way, the first time. When your critical SD-WAN network depends on it, that's a big deal for your business.



# With traditional telcos, you only get half a product.

When customer service is missing in action, it's your business that suffers.

Too often, the old-school telcos choose the path of least resistance when it comes to customer service. It makes economic sense for them to send customer service offshore, while still giving the illusion that it's easy for customers to access help when they need it.

But if you've dealt with a traditional telco, you know it simply doesn't work. Call queues can blow out to hours. When there's an answer, the person on the other end often can't solve your problem. Accessing an engineer directly is a pipe dream, and chatbots take the place of a human account manager who knows your business inside-out.

## Features

Basic access to your network settings online.

Session or flow-based link steering.

Call-out site configurations and updates.

Broad SLAs guaranteeing standard levels of network performance.

Standard always-on buffering and FEC.

Standard network architecture based on incumbent technology.

A long-term equipment maintenance and upgrade path.

## Service

Long call queues and call bouncing between departments.

Offshore staff reading from scripts often outsourced.

Challenges getting complex problems solved quickly.

No account manager, only a general call centre number.

No access to engineers or product managers.

Push towards using chatbots and automation to answer all enquiries.



# With Macquarie Telecom you get the whole product.

What  
something  
does is half  
the product.  
The service  
that goes  
with it is the  
other half.

When you choose Macquarie Telecom SD-WAN, you're getting a powerful network with features you won't find with the traditional telcos, backed by our experience rolling out over 6,000 sites.

But the other half of the product is just as important. Customer service that's right here in Australia, an account manager who will work with your business rather than just selling to your business, and access to engineers when you need them.

With us, you'll get the whole product. So why settle for half?

## Features

Network control and visibility at an application level.

Packet steering on a per-packet basis.

Dashboard to control rollouts, configuration and site upgrades.

Guaranteed performance over private L2 access.

Performance features like FEC and jitter buffering activated as-needed.

Hybrid architecture for security, performance and scalability.

Expert experience with 7,000+ sites rolled out.

## Service

A call centre that answers in under two minutes.

Australia-based staff who speak from their experience, not scripts.

Experts who can take ownership of your problems.

An account management team that knows your business inside-out.

Direct access to engineers and project managers.

An account management team that knows your business inside-out.

# We're Australia's leader in SD-WAN.

## It's not a claim we make lightly.



**Becoming SD-WAN experts didn't happen overnight.**

Macquarie Telecom introduced SD-WAN to Australia at a time when traditional telcos wanted to keep businesses locked into legacy on-premise networks. With hindsight, it was a genuine turning point for the industry.

Since then, we've deployed more than 550 SD-WAN networks right across Australia. And with well over 7,000 sites, we're not only in the lead nationally, but we've rolled out more sites than any other SD-WAN provider in the Asia Pacific region.

Our certified engineers are already industry leaders in SD-WAN, but they view every network they deploy as an opportunity to build on their experience. And that means that when you choose Macquarie, you're choosing a level of SD-WAN expertise that can't be matched anywhere in Australia.

**Cheekily leaving out features isn't our style.**

Since we introduced the technology to Australia, SD-WAN has become the de facto standard for new networks. But that doesn't mean it's now a level playing field. Our evolving partnership with VMware means we can provide features that other networks silently omit. Here are a few:

**Our SD-WAN**

Our SD-WAN steers every packet of data across the fastest link at any given second.

Forward error correction on demand.

Easy to manage dynamic tunnels which are automatically created between sites.

Highly secure private or MPLS access links at social sites.

**Other vendors**

Other vendors only offer session-based or flow-based link steering.

'All' or 'nothing' error correction. When enabled, every single packet is duplicated, consuming unnecessary bandwidth.

Some other vendors require manual VPN configurations between each site.

Internet-based links at local site, offering less security for your data.



7,000+ sites rolled out across Australia.



550+ network deployments completed nationally.



#1 for SD-WAN in the APAC region.

# We are VMware's biggest APAC deployer.

## VMware occupies Gartner's top spot...

Since 2017, VMware has been a leader in Gartner's magic quadrant for SD-WAN networks. In just over five years, they've rolled out over 400,000 SD-WAN sites globally, and can also take credit for the world's largest deployment incorporating 18,000 sites collectively.

It's not just this impressive rollout schedule that has attracted Gartner's endorsement. Since SD-WAN was an emerging technology, VMware has continuously introduced new features to the market, like per-packet steering and dynamic tunneling. Many of them remain unique to our SD-WAN product today.

## ...and we occupy VMware's.

A year after we launched SD-WAN in Australia, we received VMware's Partner Innovation Award for the Asia-Pacific region.

We were proud to be recognised not only for the expertise we showed in pioneering SD-WAN in the Australian market, but also the exceptional customer experience we delivered to every one of our SD-WAN customers.

Recognising not only our site rollout track record but also the proven performance and peerless customer experience delivered to every one of our SD-WAN customers, the award confirmed that VMware sees Macquarie as a critical partner in best-practice SD-WAN network rollouts.



# Your security belongs in the cloud. Starting right now.

## Secure today. SASE- ready for tomorrow.

The public cloud has already made it easy for applications to sit in the cloud, taking away the complexities of managing applications and the local infrastructure needed to run them.

Now, it's time to manage the security of your network in the same way. Macquarie Telecom delivers the best-of-breed technology by combining VMware SD-WAN at the edge, with customisable options for VMware powered SSE functionality. This means the assurance of cloud-based security today, and readiness for SASE (a secure access service edge), when you choose to deploy it.

## Security that fits into your world.

We've put together a flexible approach to security that can either integrate with your existing platform, or replace it completely.

## The future of SASE is almost here.

Macquarie Telecom integrated SASE is launching soon. We'll make sure you're ready.



It's time to talk  
to the **UnTelco.**

Give us a buzz on 1800 004 943  
Learn more at [macquarietelecom.com](https://macquarietelecom.com)

