Why isn't the level two photocopier responding?

Show me all guest users. Which devices are using the most oandwidth?

> What's happening with Jono's laptop connection?

. . .

What's up with the Wi-Fi on level two?

How did the network perform yesterday?

Introducing the intelligent Wi-Fi network.

Macquarie Telecom SD-LAN.



It's time to say goodbye to Wi-F networks that don't look after themselves.

SD-LAN is the Al-powered network that detects and solves problems before you know they've happened. It watches over every part of your network 24/7, and you can even ask it questions using plain English.

If your business has better things to do than manage a network, it's time to choose the intelligent LAN.

Is your traditional LAN making things hard? We get it.

When something in our network goes down, it can take days to identify the problem – usually when someone notices and reports it.

Troubleshooting and reporting on our network means using command line prompts across multiple systems.

Fixing our network is very hands-on. We always need engineers on hand to manually sort out unexpected problems.

Our LAN is a mix of equipment we have to manage ourselves, from licences and configuration to equipment repairs. It's inefficient and expensive.

> When we need help, we need to find the right vendor, and often deal with overseas support or online "help" systems.

SD-LAN. A true reinvention of the LAN.



of problems solved before they're manually detected.



faster than Wi-Fi 5.



Al-powered network that uses natural language.

Five ways SD-LAN will change your business.

SD-LAN means less downtime for your people. It intelligently fixes problems before you know they happened.

It's easy to control user access and bandwidth down to an application level, so business-critical apps run faster.

3

2

Our SD-LAN dashboard responds to plain English questions and instructions. It's the end of complex command line prompts.

4

Marvis watches every client's connection on your network 24/7, so your IT team doesn't lose valuable hours problem-hunting.

5

Because it's fully managed, from network design to onsite replacements, SD-LAN reduces IT resource time and costs.

Telco



Old-school LANs expect you to notice when something's gone wrong – and then spend hours troubleshooting.



SD-LAN identifies problems as soon as they happen, and fixes them straight away. (And it lets you know, too.)

We're bringing artificial

intelligence (AI) to the LAN. Type your question in plain

Troubleshooting a traditional Wi-Fi network involves command prompts and checking lines of code.

With traditional LANs the rollout, licencing, firmware updates and troubleshooting are all left up to you.



SD-LAN is fully managed, from network planning and

English, and get a clear answer.

from network planning and licence management to onsite equipment replacement.

Traditional Wi-Fi networks use standards that are getting long in the tooth, like 802.11b.



Wi-Fi 6 equipment comes standard with SD-LAN. It's faster, more efficient, and connects more devices.

Getting support from your traditional telco is hard work. And your call for help usually heads overseas.



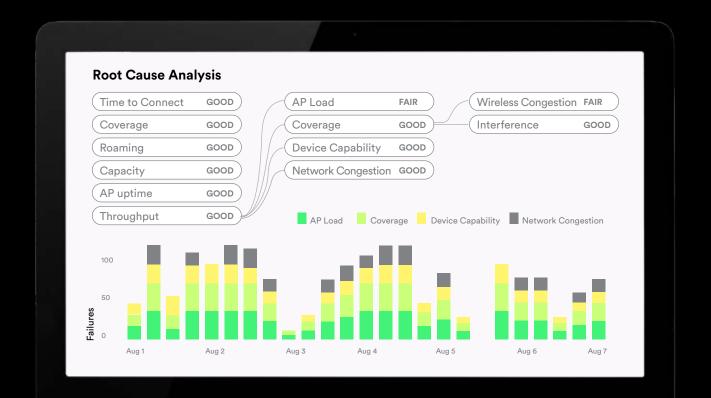
You'll have your own account management team, and always-on service from our Sydney-based call centre.

A virtual technician watching over every router. And switch, client, and access point too.

Imagine having a set of eyes on every access point, switch, router or SD-WAN Edge device right across your network, waiting to take action as soon as something goes wrong.

Until now, failures in a LAN had to be identified manually – usually by end users – and then an engineer could begin troubleshooting. A costly and time-consuming way to keep your network up and running.

We're excited to introduce Marvis: the AI powered network engineer. He finds problems before you know they've happened, and works out how do solve them. Then he reports back to let you know what he's done.Now, LAN failures won't stop your people in their tracks.





What is wrong with Kelly's laptop connection today?

The device was slow to connect on 12% of occasions, this problem is affecting users on "Floor 3 WAN".

The Al-based network manager that speaks plain English.

Traditional network management tools expect us to speak their language. They're all about putting command line requests into multiple dashboards – which takes time and requires expertise.

Our SD-LAN uses AI to converse in natural English. You can ask it things like "why is Simon's Wi-Fi slow today?", or "how many users are connected to the guest network?", and it will know exactly what you mean.

Marvis' Al can tell you about network events at a client, device and site level. It can even analyse what's happening right down to specific applications. So let's say you've noticed that video conferences at a specific site are dropping out. All you need to do is ask Marvis what's going on.

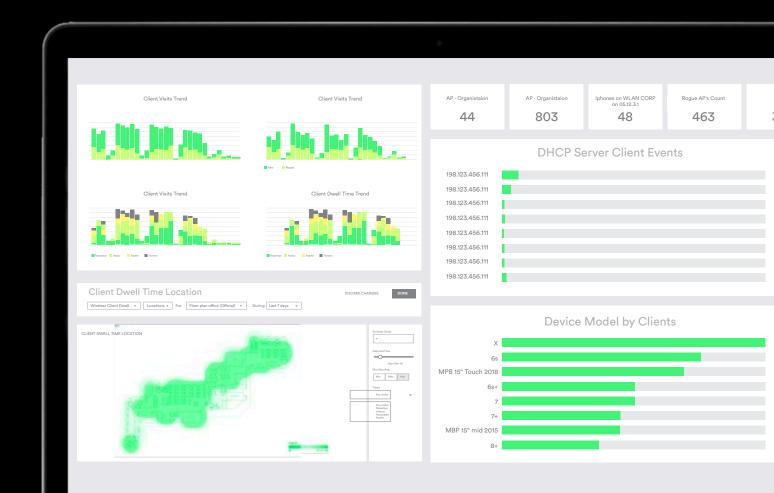
Of course, sometimes your IT people might want to dig into a problem in more detail, even after Marvis has solved it. No worries. The packet data for every event is stored and can easily be accessed for review.

Identifying trends, solving problems. All in a day's work for SD-LAN.

When Marvis identifies services that are causing problems on the network, it quickly identifies the root cause of an issue and recommends an action.

It's smart enough to know that every network is different. So instead of using standard failure criteria, it baselines every part of your network and only alerts you when there's a service-impacting deviation from that baseline. You can even choose external events that will be triggered when there's a specific problem – like creating a helpdesk ticket – without human intervention.

We know that understanding trends in your network is as important as resolving each individual error. SD-LAN tracks trends at device and network level, to help with system-wide troubleshooting and planning.



Marvis sorts out almost everything. (But he'll need your help with replacing cables.)

Marvis' AI engine looks for problems across all the domains of your network: WLAN, LAN, WAN and security.

Closely monitoring your wired network, Marvis has his eye on things like missing VLAN tags and incorrect port mode configuration settings. He'll even identify specific network cables that have failed... but of course he'll need you to lend a hand to replace those!

In your wireless network, he'll track and roll out firmware upgrades and resolve EAP/802.11x authentication failures.

And Marvis is even smart enough to know when something's gone wrong outside the SD-LAN environment. When it does, you'll get an alert and recommended actions to take to fix the problem.

Software-defined traffic management that's simple to use.

SD-LAN makes it easy to control your traffic, down to the application level. It lets you pinpoint which apps (and which users) are slowing the LAN down – all from a single cloud-based dashboard.

And you don't need to wait until the network's overloaded. SD-LAN lets you create rules to prioritise specific business-critical applications, leaving applications like YouTube to wait their turn.

Setup is easy, too. We've pre-configured SD-LAN with over 2,500 applications, to make rule creation as easy as dragging and dropping.

Wi-Fi 6. A blast from the future.

100

When you choose SD-LAN from Macquarie Telecom, all the access points we provide are equipped with Wi-Fi 6 (or IEEE 802.11ax). Recently launched, Wi-Fi 6 makes things faster by reducing overhead and latency. Using high-efficiency signalling, it allows better data throughput even when the signal appears lower. In a nutshell, Wi-Fi 6 means faster data in more places for your customers and staff.

Security that's on duty 24/7.

SD-LAN never takes a break when it comes to security. Its real-time dashboard shows you which devices are connected, what applications they're using, and which access point or wired port they are connected to. If a security risk occurs, like a rogue access point or fake access point flooding, you'll be alerted straight away. From there, it's easy to make changes directly from the dashboard and push them out an entire group or a specific device.

From network design to on-site replacements, your LAN is in safe hands.

Macquarie Telecom's SD-LAN is fully managed, so you don't have to commit time and budget to assembling your own solution. Here's a look at what we'll do for you.

Network design and rollout



We start at the beginning, by understanding your sites. We heatmap every part of your premises, so we can design a Wi-Fi configuration that doesn't leave coverage to chance. Then, we'll provide the right selection of access points and switches, and install everything exactly as it should be.

Licence lifecycle



We'll procure, configure and activate all the licences you need for your access points and cloud services. More importantly, we will make sure your licenses are renewed – so you'll never be caught short with unexpected lapses.

Support at every level



Whether you need simple end-user support, or you're raising a complex problem to our tier 3 engineers, our Sydney-based teams are available 24/7, every day of the year.

And communication is a two-way street: we'll proactively notify you about planned and urgent network events, so you understand their potential impact and can let us know what support you'll need.

Account management team



Headed up by your account manager, you'll have a team of people including a solution architect, device manager, and our SD-LAN SME team – all working together to look after you.

Unlike traditional telcos, you won't be left to find support from script-based call centres overseas.

The Wi-F network that connects you to your customers.

Macquarie Telecom SD-LAN combines vBLE technology with cloud-based machine learning to bring accurate real-time indoor location services to your business.

Which means? Whether you want to tell customers about a special offer in aisle five, or monitor meeting room availability at head office, SD-LAN makes digital real-time engagement simple.

Indoor location finding

SD-LAN makes it easy for employees, guests, and customers to find their way with indoor directions that are precise to within one metre (and ultra-responsive, too – with sub-second latency). Real-time proximity notifications and alerts

Using virtual beacons, SD-LAN can deliver push notifications anywhere. It's easy to instantly greet customers or clients as they arrive on site, or deliver any contextually relevant message the situation calls for.

A dashboard full of instant insights

We know that real-time communication with customers is a two-way street. You want to get your message out to them, but also understand their behaviour too. SD-LAN's engagement dashboard lets you measure dwell time, repeat visiting patterns, and long-term trends.



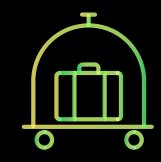
Easy integration with our SDK

A network with this kind of power is only valuable if it can talk to your existing systems and databases. We offer a mobile SDK with open APIs to make full automation and seamless integration with your environment straight forward.

Indoor location services. A step in the right direction for your business.

Hospitality.

- Offer guests a fast, seamless way to check-in
- Send personalised greetings to your VIPs and loyal guests
- Easy real-time navigation through the property
- Location sharing with family and friends





Retail.

- Notify shoppers when items are ready to collect
- Provide location-aware offers and notifications
- Easy navigation throughout stores and departments
- Use a mobile device to find a salesperson

Education.

- Make it easy for students to navigate across campus
- Analytics to understand traffic flow at on-campus facilities
- Self-guided tours for new starters and visitors



 $\overbrace{\checkmark}$

Healthcare.

- Provide patients with a quick check-in and help them navigate to their assigned room
- Location-aware nurse call service
- Keep patients safe with integrated tracking and security

Before SD-LAN, we introduced SD-WAN.

In 2017, Macquarie Telecom launched the first true SD-WAN solution into Australia. Within one month, we'd rolled out 100 sites and cemented our position as the leading provider of SD-WAN to Australian businesses.

Today, we've rolled out over four thousand SD-WAN sites, and we're the leader in SD-WAN in the Asia-Pacific region. Recently, we won VMWare's Partner Innovation Award, cementing our reputation as experts in the design and implementation of the networks of the future.

vmware



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

We have our own highly trained support team in the centre of our head office in Sydney. When you call, you'll usually be in touch with a real person in less than two minutes.

Our people don't just answer phones. They're skilled problem-solvers. Our call centre's current Net Promoter Score (NPS) is +71, and we're always striving to make it even higher.

No long waits, no offshoring, no passing the buck. As the UnTelco, that's simply not the way we do things.



Kristen Customer Service

> In April 2020, our customers waited for less than two minutes to have their call answered, on average.

Average wait time: < 2 minutes Our Net Promoter Score: +71

It's time to make the move.

Call us on 1800 004 943

Learn more at macquarietelecom.com



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