



# Managed Network

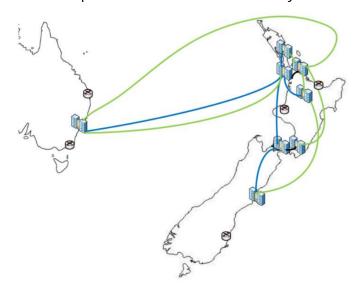
### Solution Overview

Our Network as a Service (NaaS) offerings include WAN, Internet Access, Wi-Fi, and LAN, and Software Defined Networking. We provide all the hardware and licensing you need to get up and running. This includes network design, installation, ongoing maintenance, security, and reporting, troubleshooting to ensure your network runs smoothly and efficiently, allowing your business to focus on core activities without worrying about technical details.

Once your devices are installed and configured, we will proactively monitor your network for issues. We take responsibility for maintaining the hardware and managing any changes you need. All of this is available for one fixed monthly fee. We can also scale your services up or down as your needs change, and we provide a single bill for all your services, so you don't have to manage multiple invoices.

# How Does the Managed Network Service Work?

Eight points of presence and reach into all of New Zealand and Australia Telesmart focusses on quality connections for real time communications. Direct connections to Amazon and Azure cloud, and into New Zealand and Australia's most popular private cloud companies Telesmart can connect you securely and reliably to the cloud.







This service offers a comprehensive suite of features designed to enhance network performance and security. It includes high-performance SD WAN Class Internet, MPLS with Quality of Service, and managed routers. The service is backed by a best-effort Service Level Agreement, ensuring reliable and prioritised data transmission.

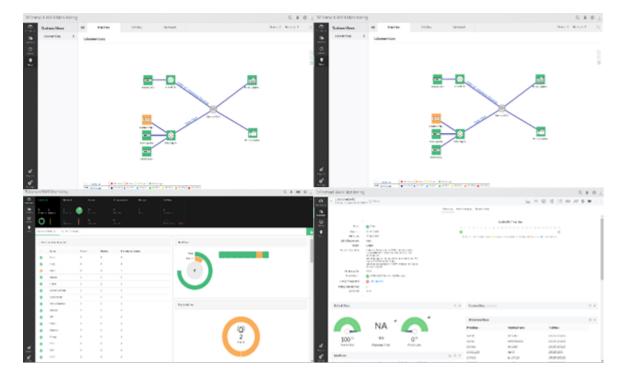
Features	SD WAN Class Internet	MPLS with Quality of Service	MPLS SD with Quality of Service
Managed Router included	$\bigcirc$	<b>⊘</b>	<b>⊘</b>
Network Operations Centre Monitoring		<b>⊘</b>	<b>⊘</b>
Static IP address		<b>⊘</b>	<b>⊘</b>
Single Pane Visibility	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Centralised internet		<b>✓</b> *	<b>✓</b> *
Quality of service Wide Area Network		<b>⊘</b>	<b>⊘</b>
Wide Area Network Reporting		<b>⊘</b>	
Reactive Monitoring	<b>⊘</b>		
Proactive Response		<b>⊘</b>	<b>⊘</b>
Unified Threat Management		<b>✓</b> **	<b>✓</b> **
Email Sandbox	<b>⊘</b>	<b>✓</b> **	<b>✓</b> **
Microsoft Express Route		<b>⊘</b>	<b>⊘</b>
Amazon Direct Connect		<b>⊘</b>	<b>⊘</b>
Service Level Agreement	Best Efforts	<b>⊘</b>	<b>⊘</b>

# Managed Wide Area Network (WAN)

Across all Telesmart's Wide Area Network offerings we offer network reporting as standard. Customers can access network topology maps, link utilization and alarms through the web portal. We also offer advanced reporting that drills down to Quality of Service and Application performance.







This service provides a range of features designed to enhance network visibility and performance. It includes both standard and advanced options.

Features	Standard	Advanced
Network Topology Map	$\bigcirc$	
Status of devices up / down	<b>⊘</b>	<b>⊘</b>
Site Bandwidth utilisation	<b>⊘</b>	<b>⊘</b>
Forensic reporting	<b>⊘</b>	<b>⊘</b>
Scheduled reports with up time, utilisation and alarms		
Utilisation/stats	<b>⊘</b>	<b>⊘</b>
Updated every 5 mins. User can also click a real time		
button for live update		
Application bandwidth utilisation		<b>⊘</b>
Source / destination IP		_
QoS utilisation reports		<b>⊘</b>
Top conversations between IP addresses on the WAN		
Ability time of day (trends)		<b>⊘</b>





# **Managed Internet**

Telesmart provide a low contention high speed internet connectivity to our corporate customers. We have architected our internet service with diverse national and international wholesale providers to ensure our customers stay connected.

We are great believers in a single internet pool for multi-site customers, this provides:

- The purchase of one internet plan as opposed to paying for individual internet plans at each site
- Unlimited national traffic as fast as the individual site connection can provide
- Fixed price international traffic based on the bandwidth required not the data consumed
- Better network design and security. Internet traffic is firewalled and routed within our core infrastructure reducing the time to get where it needs to go, simplifying management.

In addition, we have invested in private diverse connectivity to the Equinix SY3 data centre in Sydney where Amazon and Microsoft provide their hosted services. This enables us to provide express routes and direct connections into their hosted infrastructure ensuring connectivity for our customers is both reliable, fast and secure.





# Managed WiFi

Telesmart provides WiFi as a Service (WaaS) as part of our networking suite of products. It is designed to provide a turn-key fully managed solution for our customers providing the following key benefits:

- Enterprise grade Aerohive Wireless service
- Full hardware replacement
- Software support and updates
- 8x5 Helpdesk services
- Cloud management of wireless network (by you and us)
- Easily add Access Points as required

Service	WaaS Advanced
Telesmart Cloud Managed	$\bigcirc$
Back to base replacement for 3 years	$\bigcirc$
RF Planning	<b>⊘</b>
802.1X, PSK	<b>⊘</b>
(Active Directory integration and Private Shared Key)	$\bigcirc$
Single Global Corporate and Guest Policy	<b>⊘</b>
Corporate and Guest SSID	$\bigcirc$
Advanced Client monitoring	<b>⊘</b>
Calibrated and Predictive Heat Maps	<b>⊘</b>
Aerohive Private pre-shared keys (PSK keys per device)	<b>⊘</b>
Reporting and advanced troubleshooting	<b>⊘</b>
Advanced Captive Web Portal for Guest Self-Registration and Mobile Apps.	<b>⊘</b>
Application use visibility and optimisation	<b>⊘</b>





### Managed Local Area Network (LAN)

Telesmart provide Managed LAN Services to enable end to end delivery and support of our Voice and Video solutions.

To deliver quality Voice and Video solutions the LAN must be properly configured, monitored and supported. Often overlooked, this is one of the critical pieces in any customer network.

Telesmart are Juniper Partners and standardise on Juniper's EX series switches. These switches are ideal for access-layer deployments in branch offices and campus networks, delivering excellent performance. This class of switch is a low power, low acoustic 1 U device designed for wiring closets, making them an economical solution for low density access business needs.

Your Managed Switch will be added to Telesmart's Network Operations Centre (NOC) and monitored by our team of Network Engineers. Telesmart carries critical spares and will provide next day replacement for any faulty equipment.

- Carrier Class Architecture
- High Speed Performance
- QOS queues to support proper prioritisation of traffic.
- Fully Managed and Supported

#### Managed Switch support details

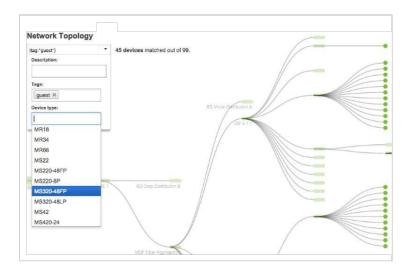
Active monitoring 24/7 of Juniper network switches. Juniper switches must be on Telesmarts network and configured by Telesmart. Remote fault diagnosis and repair included. Active configuration back up every hour. MAC's included inside helpdesk hours, subject to fair use policy determined by Telesmart. Next day replacement if it is determined the Juniper unit is inoperable by both Telesmart and the Customer. Same day replacement if possible. Helpdesk hours are 8.00 am to 5.00 pm Monday to Friday. Excludes weekends and public holidays. Out of hours support will incur additional charges. Remote installation and configuration for standard deployments is \$160 per switch, excludes patch leads.





# Flexible Software Defined Networking

Eight points of presence and reach into all of New Zealand and Australia Telesmart focusses on quality connections for real time communications. Direct connections to Amazon and Azure cloud, and into New Zealand and Australia's most popular private cloud companies Telesmart can connect you securely and reliably to the cloud.



Delivering a true Network as a Service (NaaS) elastic software defined networking is a complete cloud-managed networking solution with inbuilt flexibility to grow as your organisation requires it. Wireless, switching, security, mobility management, and communications, all centrally managed over the web Integrated hardware, software, and cloud services.

With the ability to increase or decrease underlying connectivity speeds as your requirements demand you have the perfect balance between performance and cost.





Features	Express	Business	Enterprise
Centralised Management			$\bigcirc$
Auto VPN	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
High Availability	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
On Premises Security	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Full stack integrated LAN and WiFi	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Cloud Security	<b>⊘</b>	<b>Ø</b>	<b>⊘</b>
Advanced Threat Protection	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Advanced Analytics	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Remote worker connectivity	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Content filtering	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Speeds 100- 300 Mbps	<b>⊘</b>	<b>⊘</b>	<b>⊘</b>
Speeds 200- 500 Mbps		<b>⊘</b>	<b>⊘</b>
Speeds 300- 900 Mbps			<b>⊘</b>

### Service Add-ons

Features	Per month
Flexible bandwidth segment Per 100Mbps	$\bigcirc$
Cellular failover connection	$\bigcirc$
Meraki 8 port gig data switch Power over Ethernet LP	$\bigcirc$
Meraki 24 port gig data switch	$\bigcirc$
Meraki 24 port gig data switch Power over Ethernet LP	$\bigcirc$
Meraki 48 port gig data switch	$\bigcirc$
Meraki 48 port gig data switch Power over Ethernet LP	<b>⊘</b>
Meraki MR 36 Commercial WiFi 6 Access Point	<b>⊘</b>
Meraki MR 56 High density WiFi 6 Access Point	$\bigcirc$

Overview Based on Cisco Meraki the MX appliances are multifunctional security & SD-WAN enterprise appliances with a wide set of capabilities to address multiple use casesfrom an all-in-one device. Organisations of all sizes and across all industries rely on the MX to deliver secure hubcentric connectivity, as well as application quality of experience (QoE), through advanced analytics with machine learning. The MX is 100% cloud-managed, so installation and remote management is truly zero touch, making it ideal





for distributed branches, campuses, and data centre locations. Natively integrated with a comprehensive suite of secure network and assurance capabilities, the MX eliminates the need for multiple appliances. These capabilities include application-based firewalling, content filtering, web search filtering, SNORT®-based intrusion detection and prevention, Cisco Advanced Malware Protection (AMP), site-to-site Auto VPN, client VPN, WAN andcellular failover, dynamic path selection, web application health, VoIP health, and more. Auto VPN and SD-WAN can also be extended to resources in public clouds with virtual MX appliances (vMX) available in Amazon Web Services (AWS) and Microsoft Azure.

# **Ironclad Security**

The MX platform has an extensive suite of security features, including IDS/IPS, content filtering, web search filtering, anti- malware, geo-IP-based firewalling, IPsec VPN connectivity, and Cisco Advanced Malware Protection, while providing the performance required for modern, bandwidth-intensive networks.



Layer 7 fingerprinting technology lets administrators identify unwanted content and applications, and prevents recreational appslike BitTorrent from wasting precious bandwidth. The integrated Cisco SNORT® engine delivers superior intrusion prevention coverage, a key requirement for PCI 3.2 compliance. The MX also uses the Webroot BrightCloud® URL categorization database for CIPA/IWF-compliant content filtering, Cisco Advanced Malware Protection (AMP) engine for anti-malware, AMP Threat GridCloud, and MaxMind for geo-IP-based security rules. Best of all, these industry-leading Layer 7 security engines and signatures are always kept upto-date via the cloud, simplifyingnetwork security management.



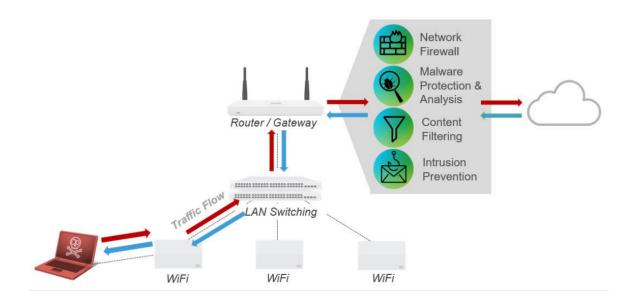


# **Common Security Architecture**

An end to end networking solution, or "Full Stack" gives you simple, scalable, cross-platform network visibility in a single navigation dashboard. Our dashboard makes it extremely easy to verify that all network devices are connected, are up-to-date, and have the latest software. Gone are the configuration headaches of traditional site-to-site VPNs: route discovery, authentication, and security policies are all handled automatically from the cloud. Our solution includes the following components:

- · Web-based management dashboard
- Cloud-managed access points
- Cloud-managed access switches
- Cloud-managed security appliances

Meraki MR wireless, MS switching, and MX security appliances all have an intuitive cloud management interface.







# Why Choose Telesmart

With points of presence throughout New Zealand and Australia, Telesmart's carrier-grade network focuses on quality connections for real-time telecommunications.

- **Unprecedent Reliability**: Virtual Private Network across Telesmart's international IPv6 MPLS backbone. We guarantee 99.999% availability across our MPLS backbone, which equates to less than 6 minutes of downtime a year.
- **Optimal Performance**: Our high-capacity network has a diverse backbone spread across multiple tier 1 carriers. Our direct carrier relationships allow us to ensure optimal performance and affordability for our customers.
- **Flexible Connectivity**: We offer comprehensive diversity and redundancy for your network via a choice of fibre, radio, copper and mobile connectivity options. We also offer Amazon AWS Direct Connect and Microsoft Azure Express Routes, for optimised cloud connectivity.
- **Expert Advice**: We provide a comprehensive solution design service to meet your exact requirements. Our dedicated team of network operations and security specialists have more than 120 years of experience between them, and will help you with your migration to our network.
- **Managed Migrations**: Leverage our hosted, cloud, or on-premise voice and video solutions to ensure smart management of your entire communication platform. Benefit from managed migrations and customised QoS that prioritises real-time communications and key applications.