

# Stay connected, secure and in control with Vodafone Business



Everything you need to know  
about Complete Connectivity





# Contents

## Make the most of this guide

- You can easily navigate through to the sections that are most relevant to you by clicking on the  to take you back to this page and the  icons to dive into the pages you need.
- Keywords are underlined throughout the guide. Clicking on these hyperlinks will take you to further content so you can find out more information.
- This guide includes full product specs for you or your team members who need to know all the nuts and bolts.

## Let's get started

<b>1</b>	<b><u>Introduction to your Complete Connectivity guide</u></b>	<b>3</b>	<b>5</b>	<b><u>Why choose Vodafone?</u></b>	<b>26</b>
<b>2</b>	<b><u>Why connectivity and security are crucial to your business success</u></b>	<b>5</b>	<b>6</b>	<b><u>Product specs and features</u></b>	<b>29</b>
<b>3</b>	<b><u>Complete Connectivity: The Vodafone package unpacked</u></b>	<b>8</b>		<ul style="list-style-type: none"><li>• <u>Cisco Meraki MX68CW Wi-Fi and Security device</u></li><li>• <u>Cisco Meraki Advanced Security Features</u></li><li>• <u>Cisco Meraki MV12 Smart Security Cameras</u></li><li>• <u>Cisco Meraki MV72 Smart Security Cameras</u></li><li>• <u>Cisco Meraki MR36 Wireless Access Points</u></li><li>• <u>Cisco Meraki MR76 Wireless Access Points</u></li></ul>	
<b>4</b>	<b><u>What Complete Connectivity can do for you</u></b>	<b>16</b>			
	<ul style="list-style-type: none"><li>• Sleep a little easier</li><li>• Get more done</li><li>• Stay one step ahead of the competition</li><li>• Take your connectivity even further</li></ul>		<b>7</b>	<b><u>What next?</u></b>	<b>49</b>





01

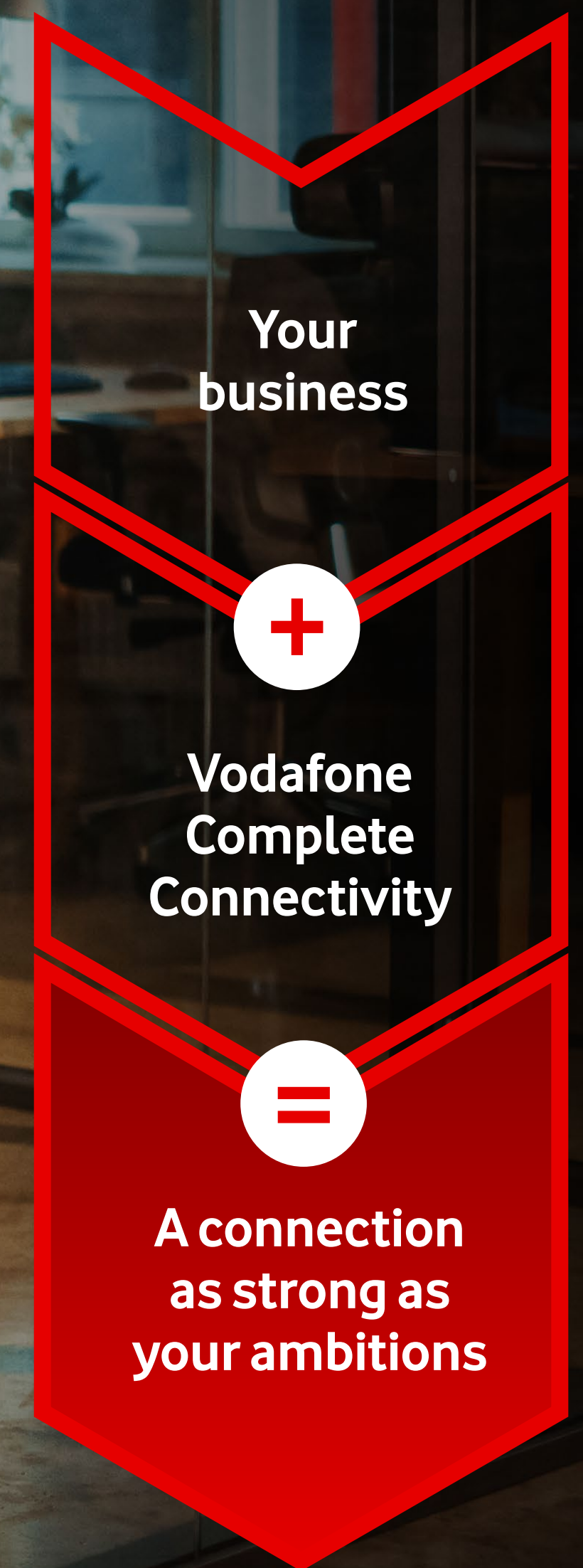
# Introduction





# Introduction to your Complete Connectivity guide

This guide addresses some of the most common problems faced by small and medium-sized businesses (SMEs) today and how Vodafone Complete Connectivity can help solve them.







# 02

**Why connectivity and security are crucial to your business success**





# Your connection to the world should be as strong as your ambitions

We know small businesses have certain challenges and we can help you with them.



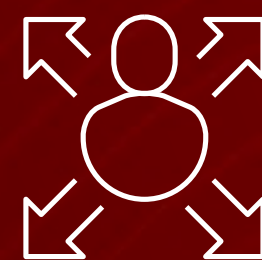
## Competitors are migrating to the Cloud

Over **1/3** of small businesses increased their cloud spend during 2020<sup>1</sup>



## Flexibility is more important than ever

Around 46% of SME employees will need to work flexibly in 2021<sup>2</sup>



## IT resources can be stretched

Without dedicated in-house IT experts, often small businesses need an easily managed way to protect their business and all their devices



## Security risks are a problem that never go away

Since the start of the pandemic in 2020, 60% of SMEs have identified cyber breaches or attacks<sup>3</sup>

Sources: 1. fsb.org.uk 2. Vodafone Homeworker Primary research, Oct 2020  
3. Cyber security breaches survey 2020







# Vodafone's connectivity beliefs

At Vodafone, we believe connectivity should be **reliable**, **secure**, and **support** new ways to stay **productive**.

We believe connectivity and security challenges shouldn't hamper SMEs' business goals. In fact, they should be a crucial part of your success story.

That's why we created a professional grade broadband offering with Cisco Meraki. Our Complete Connectivity package was built specifically for SMEs like yours to be easy to manage and scale.

So, as you grow and change, your broadband package flexes with you.







# 03

## Complete Connectivity: The Vodafone package unpacked





## What is Vodafone

# COMPLETE CONNECTIVITY?

Vodafone Complete Connectivity is our professional-grade broadband and Wi-Fi solution for small and medium-sized businesses (SMEs).

We designed it to help your business stay connected, secure, and in complete control in a single, scalable package. This means you can add new sites and products as and when you need them – and manage them all easily from a single online dashboard.

We've partnered with industry leader **Cisco Meraki** to bring you the benefit of their cloud managed IT with our connectivity, in one simple package, for the first time.







**Cisco Meraki is the industry leader in cloud-managed IT. A trusted supplier of powerful IT solutions, they've created more than 5.7 million connected devices worldwide.**

[Find out more >](#)

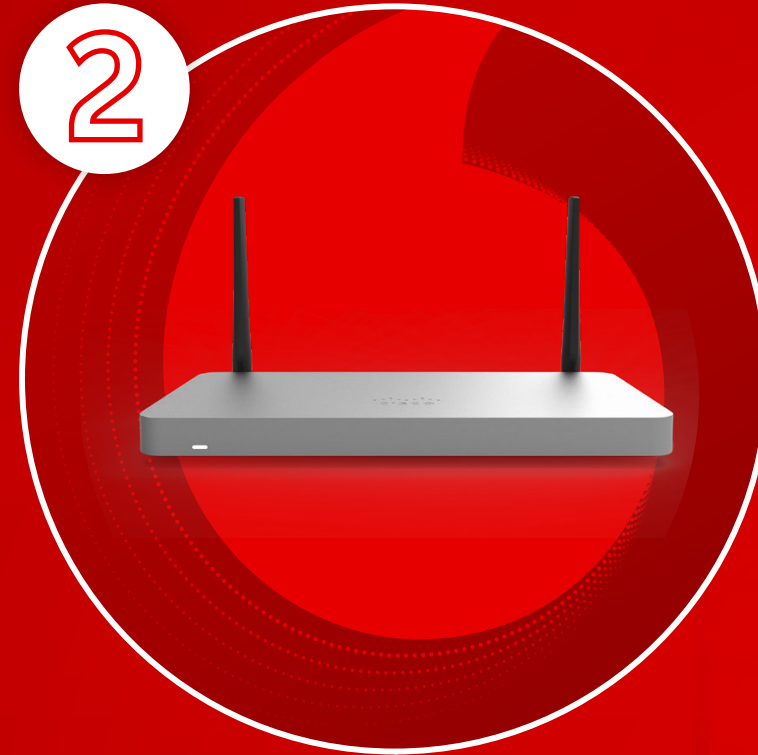






### Vodafone's super-fast fibre broadband

Average 63mbps download speed available to your sites.



### Cisco Meraki's security and Wi-Fi device with Advanced Security

Keep connected and protected online:

- Automatic security updates
- Industry-leading advanced malware protection
- Block or filter entire categories
- Intrusion prevention
- Next-gen layer 7 Firewall.



### Integrated 4G Mobile data back-up

An automatic Plan B if your broadband fails for any reason.



### Dashboard and mobile app

Visibility and control so you can manage your network from anywhere with a connection.

# What you get unpacked

[> Product specs and features](#)







# Who is Cisco Meraki

Cisco acquired San Francisco-based cloud infrastructure start-up Meraki in 2012 and now creates simple yet powerful cloud-managed IT solutions to help everyone from small businesses to global enterprises save time and money.

In fact, their solutions are so highly rated by users that 60% of first-time customers will buy more Cisco Meraki products in the two years following their initial purchase.<sup>4</sup>







# Meraki has more than 5.7 million devices online around the world<sup>5</sup>

Let's put it this way: you'd be very hard pressed to find an IT company, or any large company which manages its IT infrastructure in-house, who doesn't use Meraki or hasn't used them at some point.

Like Vodafone, Cisco Meraki knows that networking is complicated. So they work hard to make it easier, faster and smarter. They love to push boundaries, experiment and create innovative solutions that just work.

And that's exactly why we chose to partner with Cisco Meraki to bring you Complete Connectivity.







# A pioneering partnership



Enterprise-grade IT hardware and security features have only really been within easy reach of bigger businesses in the market due to the significant costs and expertise involved.

Vodafone has joined forces with Cisco Meraki to combine our service expertise and reliable network with their industry-leading cloud-managed IT in a simple and cost-effective package for smaller to medium sized businesses.

**We both have the same end-goal in sight:** to simplify connectivity technology like never before, so passionate people within SMEs can focus on their mission.







# The Cisco Meraki difference

Our offering uses enterprise-grade wireless and security technology from Cisco Meraki.

Our offering uses enterprise-grade wireless and security technology from Cisco Meraki. This gives you secure, scalable networks with embedded intelligence and security features so you can control your bandwidth and secure your network from threats.

It's designed to help your business prioritise your critical applications to help them get the best performance possible. So even if you can't always predict exactly what's next, with Complete Connectivity on your side you'll be prepared for anything.



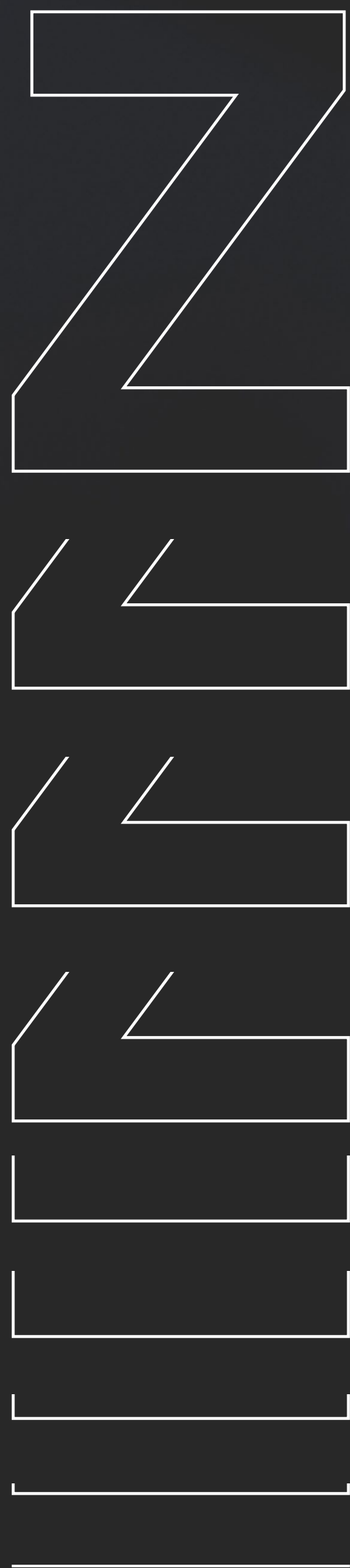




# 04

## What Complete Connectivity can do for you





We all know quality sleep is incredibly important for a healthy lifestyle. But when cybercriminals are operating 24/7, we understand why you'd want to sleep with one eye open.

# Sleep a little easier

With Complete Connectivity, you'll sleep like a baby knowing our Mobile back-up will keep your business connected when you need it most, and our Advanced Security features will help keep your people and devices as secure as possible from threats right out of the box.







## What's keeping businesses up at night...

26%

of businesses have lost sales due to connection issues<sup>6</sup>

30%

of small businesses receive download speeds of less than 10 Mbps<sup>6</sup>

39%

of small businesses (10-50 employees) and 65% of medium businesses (50-250 employees) identified a breach or attack in the last year<sup>7</sup>

£2670

was the mean cost of a cybersecurity breach for a small business in 2019<sup>7</sup>

Sources: 6. <https://www.fsb.org.uk/resource-report/lost-connection-how-poor-broadband-and-mobile-connectivity-hinders-small-firms.html>

7. <https://www.gov.uk/government/statistics/cyber-security-breaches-survey-2021/cyber-security-breaches-survey-2021>







## Stay connected, no matter what

Super-fast broadband with automatic mobile back-up and unlimited broadband downloads, will help you to stay connected and worry-free.



## Next level security

Our Cisco Meraki Wi-Fi and Security device offers Advanced Security Features including a next generation firewall and automatic security updates to give you peace of mind that you're protected from the latest threats.

[> Find out more](#)



## Key benefits

You'll also benefit from our Advanced Security features as standard such as Advanced Malware Protection, Online Content Filtering, Intrusion prevention and many more. Or add additional security and insights for your sites with Smart Cameras – all managed from one dashboard.

[> Find out more](#)







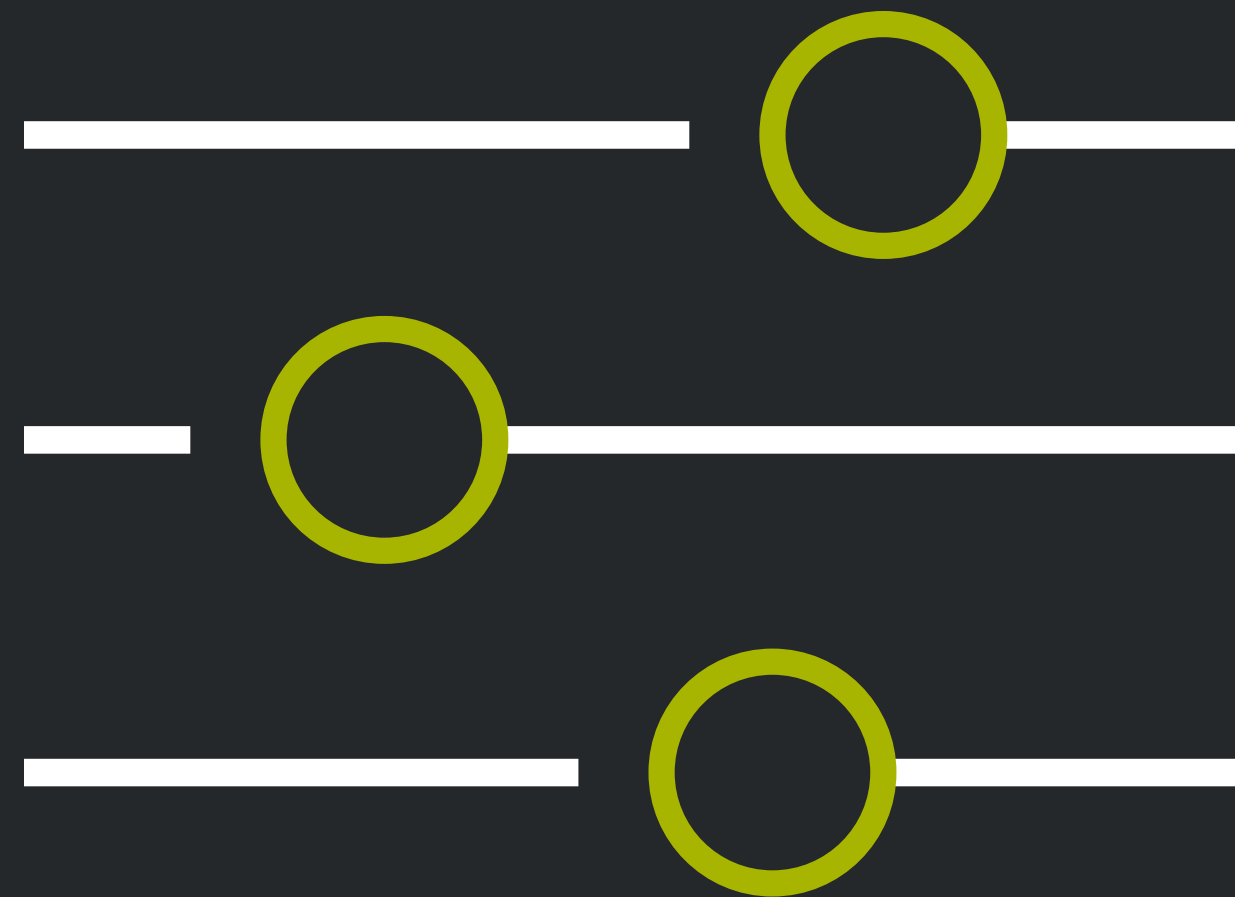
# Get more done

You probably wear many hats at work and have a knack for spinning plates. We can help you juggle more whilst lightening the load.

Complete Connectivity will give you one less thing to worry about and even give you time back to focus on other things. Our scalable and manageable solution puts you in complete control, making it simple to manage your network with our intuitive dashboard, and plug and play devices.







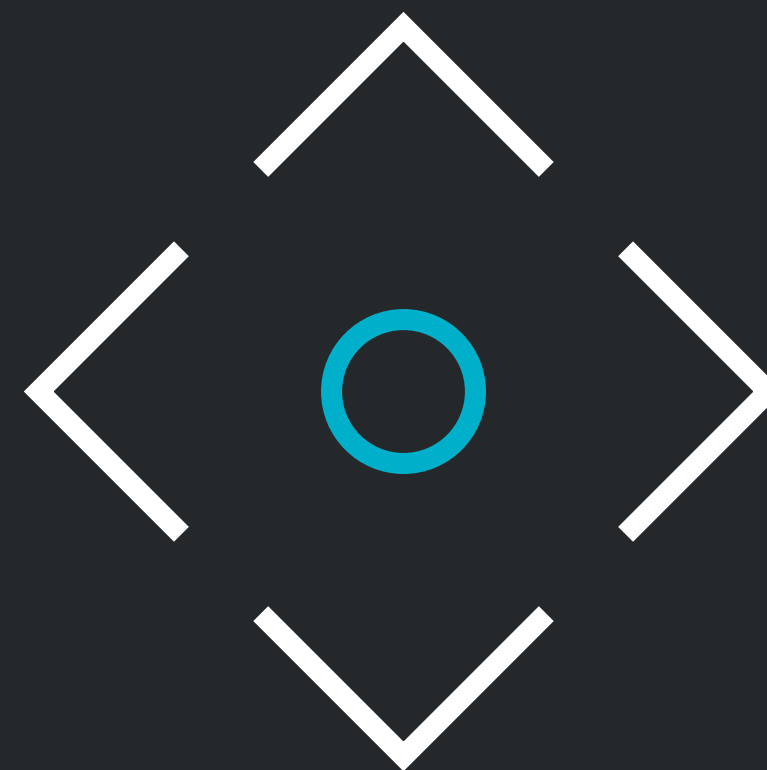
## Simplify your network management

Our intuitive online dashboard and mobile app have been designed to make it simple to manage your network from anywhere, so you'll have more time for other important tasks.



## Get the most from your bandwidth

Our simple-to-navigate online dashboard and mobile app easily helps you see and control who is using your network and for what, to ensure your bandwidth is only used for the right things.



## Make scaling up a breeze

You can easily add and manage multiple Complete Connectivity premises, additional Wi-Fi access points and Smart Security cameras all from the same dashboard as your business grows; making it a truly scalable solution for your future needs, where you're in control.

[> Find out more – Smart Security Cameras](#)

[> Find out more – Wireless Access Points](#)







# Stay one step ahead of the competition

As your staff and customers continue to switch-up office meeting rooms for their home set-ups, you've got an opportunity to bring in solutions that make new ways of working possible for the long-term.

With Complete Connectivity you can work in new ways with staff and customers alike. Use in-built VPNs to support remote workers access your network remotely and offer guests and staff Wi-Fi to improve your customer experience.



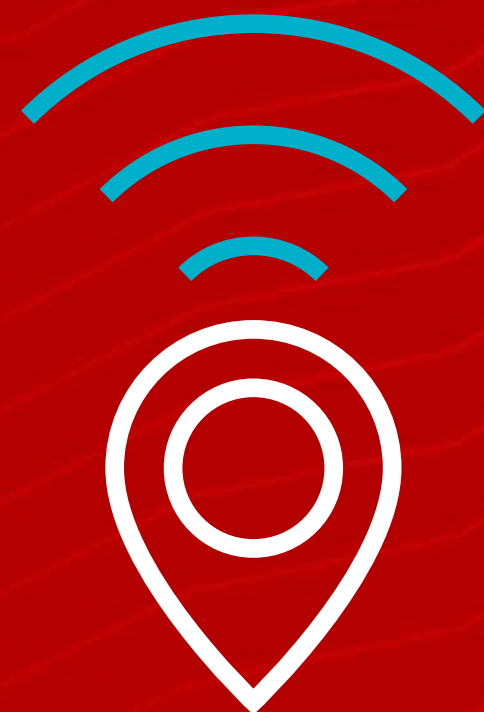




## Work over multiple sites without compromising on security

Securely and simply connect multiple sites to each other in as little as three steps, thanks to Cisco Meraki's Auto VPN feature.

[> Find out more](#)



## Keep your remote workers connected

Support remote workers with secure access to your business network with the Cisco Meraki Client VPN feature – allowing them to connect their devices to your business network remotely to access shared resources without the need for additional software.

[> Find out more](#)



## Provide great guest Wi-Fi

Offer your customers and staff access to secure guest Wi-Fi, with the option to add up to 4 Wi-Fi networks, a customised splash page, controls to limit who can access your Wi-Fi, and more, with minimal effort.

[> Find out more](#)

## How Cisco Meraki makes space for innovation<sup>8</sup>

SMEs with lean IT teams should not have to choose between innovation and security.

Complete Connectivity provides the secure foundation businesses need. Equipping organisations of any size with the capabilities to grow and innovate with confidence.

**Take a look at the product specifications included in your Complete Connectivity package to see how they work.**

[> Find out more](#)







Take your connectivity investment

# even further

As an SME, you're in the business of answering new needs, setting new standards and going places no one has been before.

We can help you save precious resources and energy by making your connectivity investment go further, helping you scale for the future and broaden your horizons when the time is right.

Complete Connectivity makes it as simple as possible for your connectivity and security to go the extra mile. Wireless Access Points and cloud-based cameras bring you next-generation performance and insights so you can make even smarter decisions.





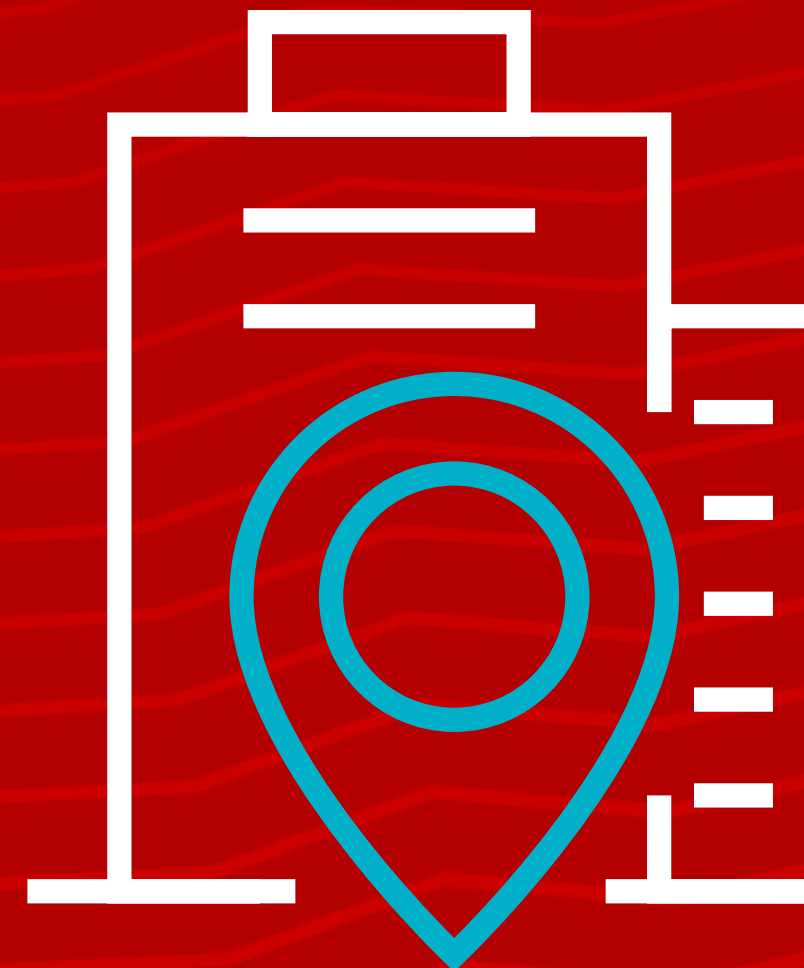


## Get wall to wall Wi-Fi coverage so your people can access your network everywhere they need it within your business

### Add Wi-Fi 6 Wireless Access points:

- Wi-Fi coverage in your business, anywhere you need it – at an affordable monthly cost
- Future-proof your business with next generation Wi-Fi 6, the latest Wi-Fi standard
- Benefit from even greater security thanks to dedicated in-built security radios that prevent other forms of attack
- Seamless roaming keeps your employees and customers connected to the same network at all times, wherever they are on your site
- Richer analytics, from a combination of Bluetooth beacons integrated in the access point and Wi-Fi, provide accurate and detailed information on things such as customer footfall and dwell times

[> Find out more](#)

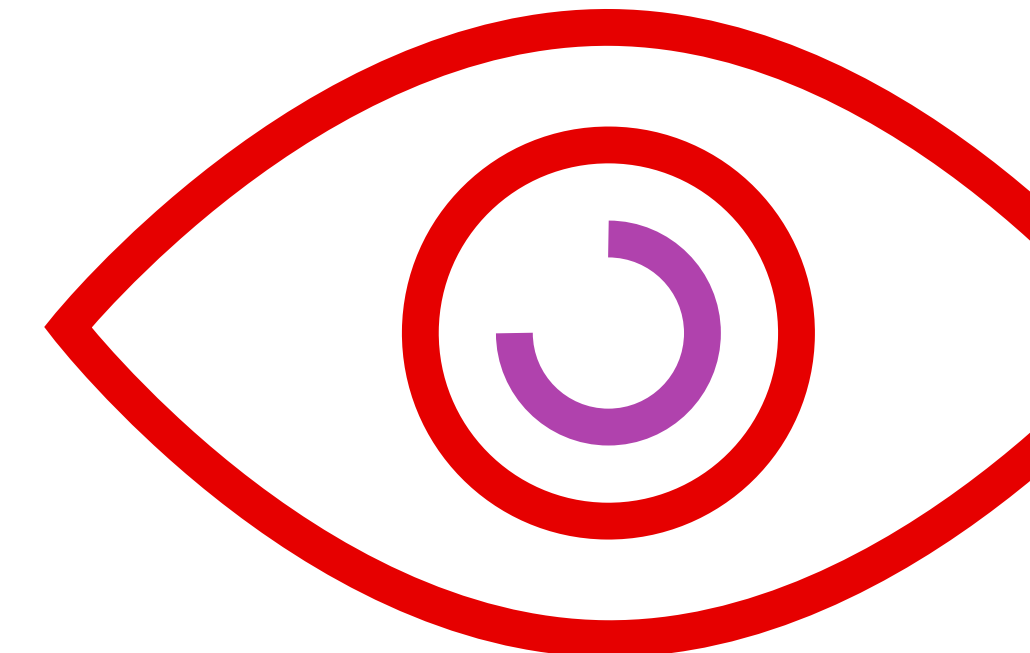


## Take your physical security to the next level by putting insights to work

### Add cloud-based cameras:

- Unlock business insights with video footage and built-in analytics, such as motion heat maps and object detection
- View everything in one place with your video feed in your network dashboard, and customise your own 'video wall' to easily manage the views from your multiple cameras all at once
- Help deter and detect criminal activity with always-on recording even without connectivity, thanks to the in-built storage in each camera
- Gain end-to-end encrypted video data by default, with control over who can view which feeds for security and compliance

[> Find out more](#)







05

# Why choose Vodafone?





# Why choose Vodafone for your connectivity?



## Receive professional-grade hardware at a predictable, affordable price

- We deliver a professional-grade solution in an easy-to-use offer, with one affordable monthly bill, powered by our partnership with Cisco Meraki



## No hidden setup or activation fees

- Our Complete Connectivity packages are completely transparent
- We have unlimited downloads on our broadband or mobile back-up, no postage and packaging fees and no mandatory setup charges – just a simple monthly fee per site

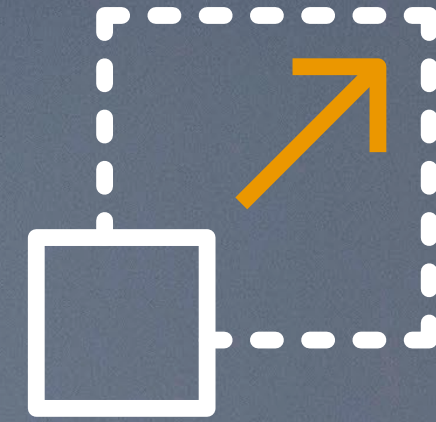


## Gain security features as standard

- Only Vodafone provides our customers with powerful security features as standard, helping you to easily manage Advanced Security features yourself
- Out of the box, we pre-enable powerful features for you, such as online content filtering, Intrusion Prevention and Advanced Malware Protection; all of which are frequently updated







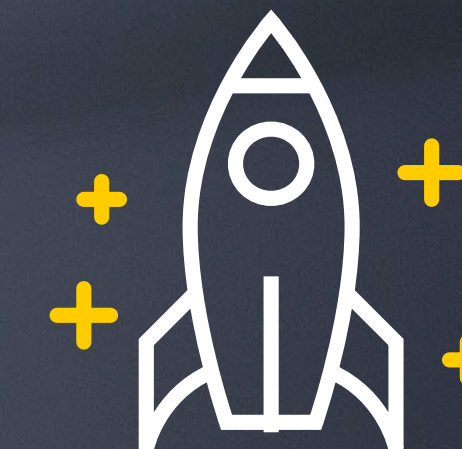
### Scale as and when you need

- Our solution enables you to manage your Wi-Fi and internet traffic across all of your sites, as well as extra Wireless access points and even Smart Cameras – all from a single, intuitive online dashboard and mobile app so you can manage your network from anywhere you do business



### Be more planet friendly

- We're committed to cutting our own environmental impacts as well as enabling our partners to do the same, so we can create a zero-carbon future together
- We're working to eliminate all carbon emissions from our UK operations by 2027 and be net zero across our carbon footprint globally by 2040<sup>9</sup>



### Become future-ready

- We help you keep pace with changing demands and opportunities
- We work with local and national partners across the UK to deliver the best coverage and speeds throughout our connectivity portfolio
- We've made significant investments to sustain our commitment to our customers – in recent years we've invested over £4.5bn in our entire network<sup>10</sup>



Sources: 9. <https://www.vodafone.co.uk/mobile/sustainable-business/planet>  
 10. [newscentre.vodafone.co.uk](https://www.vodafone.co.uk/newscentre)







# 06

[Cisco Meraki MX68CW Wi-Fi and Security device >](#)

[Cisco Meraki Advanced Security >](#)

[Cisco Meraki MV12 Smart Security Cameras >](#)

[Cisco Meraki MV72 Smart Security Cameras >](#)

[Cisco Meraki MR36 Wireless Access Points >](#)

[Cisco Meraki MR76 Wireless Access Points >](#)

# Product specs and features





# Cisco Meraki MX68CW

## Wi-Fi and Security device

### In a nutshell

The Cisco Meraki MX is a multifunctional Wi-Fi, Security & SD-WAN enterprise-grade device with a wide set of capabilities to address multiple use cases—from an all-in-one device.

This device provides businesses with Wi-Fi, Security, 4G backup, SD-WAN and 10 LAN ports all in a single, high quality device.

### How it works

**The MX is 100% managed from the cloud, so installation and remote management is truly zero touch, making it ideal for distributed branch sites.**

Natively integrated with a comprehensive suite of secure network and assurance capabilities, the MX eliminates the need for multiple devices. These capabilities include content filtering, Cisco Advanced Malware Protection (AMP), dynamic path selection, and much more.







# Product highlights

## Advanced quality of experience (QoE) analytics

- **End-to-end health of web applications at-a-glance** across the LAN, WAN, and application server
- **Machine-learned smart application thresholds** autonomously applied to identify true anomalies based on past behavioural patterns
- **Monitor the health of all MX WAN links**, including cellular, across your entire organization at-a-glance
- **Detailed hop-by-hop VoIP performance analysis** across all uplinks

## Feature-rich unified threat management (UTM) capabilities

- **Application-aware traffic control:** bandwidth policies for Layer 7 application types (e.g., block YouTube, prioritize Skype, throttle BitTorrent)
- **Content filtering:** CIPA-compliant content filter, safe-search enforcement (Google/Bing), and YouTube for Schools
- **Intrusion prevention:** PCI-compliant IPS sensor using industry-leading SNORT® signature database from Cisco
- **Advanced Malware Protection:** file reputation-based protection engine powered by Cisco AMP
- **Identity-based security policies and application management**

## Branch gateway services

- Built-in DHCP, NAT, QoS, and VLAN management services
- **Web caching:** accelerates frequently accessed content
- **Load balancing:** combines multiple WAN links into a single high-speed interface, with policies for QoS, traffic shaping, and failover
- **Smart connection monitoring:** automatic detection of layer 2 and layer 3 outages and fast failover, including option of integrated
- **LTE Advanced or 4G modems**

## Industry-leading cloud management

- **Unified firewall, switching, wireless LAN, and mobile** device management through an intuitive web-based dashboard
- **Template-based settings scale easily** from small deployments to tens of thousands of devices
- **Role-based administration**, configurable email alerts for a variety of important events, and easily auditable change logs
- **Summary reports** with user, device, and application usage details archived in the cloud

## Intelligent site-to-site VPN with Meraki SD-WAN

- **Auto VPN:** automatic VPN route generation using IKE/IPsec setup.
- **Runs on physical MX appliances** and as a virtual instance within the Amazon AWS or Microsoft Azure cloud services
- **SD-WAN with active / active VPN**, policy-based-routing, dynamic VPN path selection, and support for application-layer performance profiles to ensure prioritization of the applications types that matter
- **Interoperates with all IPsec VPN devices** and services
- **Automated MPLS to VPN failover** within seconds of a connection failure
- **Client VPN:** L2TP IPsec support for native Windows, Mac OS X, iPad and Android clients with no per-user licensing fees

## Integrated 802.11ac Wave 2 Wi-Fi 5

- The MX68CW integrates Cisco Meraki's award-winning wireless technology with the powerful MX network security features in a compact form factor ideal for branch offices or small enterprises.
- Dual-band 802.11n/ac Wave 2, 2x2 MU-MIMO with 2 spatial streams
- Unified management of network security and wireless Integrated enterprise security and guest access

## 4G backup

- While MX models feature a USB port for 4G failover, the MX68CW includes a SIM slot and internal LTE modem. This integrated functionality removes the need for external hardware and allows for cellular visibility and configuration within the Meraki dashboard. As part of your Complete Connectivity order, your Vodafone SIM card has been pre-inserted for you.
- 1 x CAT 6, 300 Mbps LTE modem
- 1 x Nano SIM slot (4ff form factor)

## Power over Ethernet

- The MX68CW includes two ports with 802.3at (PoE+).
- This built-in power capability removes the need for additional hardware to power critical branch devices.
- 2 x 802.3at (PoE+) ports capable of providing a total of 60W
- APs, phones, cameras, and other PoE-enabled devices can be powered without the need for AC adapters, PoE converters, or unmanaged PoE switches.







# Specifications

<b>Network and security services</b>	<ul style="list-style-type: none"> <li>Stateful firewall, 1:1 NAT, DHCP, DMZ, static routing</li> <li>Identity-based policies</li> <li>Auto VPN self-configuring site-to-site VPN</li> <li>Client VPN (IPsec)</li> <li>User and device quarantine</li> <li>VLAN support and DHCP services</li> </ul>
<b>WAN performance management</b>	<ul style="list-style-type: none"> <li>WAN link aggregation</li> <li>Application level (Layer 7) traffic analysis and shaping</li> <li>Automatic Layer 3 failover (including VPN connections)</li> <li>WAN uplink selection based on traffic type</li> </ul>
<b>Monitoring and management</b>	<ul style="list-style-type: none"> <li>Web based management and configuration</li> <li>Throughput, connectivity monitoring and alerts</li> <li>Network asset discovery and user identification</li> <li>Built-in network-wide reporting, monitoring and alerts</li> <li>Centralised policy management</li> <li>Real-time diagnostic and troubleshooting over the web</li> <li>Automatic firmware upgrades and security patches</li> <li>Searchable network-wide event logs</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>WAN: 2 × 1 GbE</li> <li>LAN: 10 × 1 GbE (2 PoE+)</li> <li>1 x CAT 6 LTE Cellular Modem</li> <li>Wireless: 802.11ac Wave 2 Wi-Fi 5</li> </ul>

<b>Integrated Wireless</b>	<ul style="list-style-type: none"> <li>1 x 802.11a/n/ac (5 GHz) radio</li> <li>1 x 802.11b/g/n (2.4 GHz) radio</li> <li>Max data rate 1.3 Gbps aggregate</li> <li>2 x 2 MU-MIMO with two spatial streams</li> <li>2 external dual-band dipole antennas (connector type: RP-SMA)</li> <li>Antenna gain: 3.0 dBi @ 2.4 GHz, 3.5 dBi @ 5 GHz</li> <li>WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X authentication</li> <li>CE (Europe): 2.412-2.484 GHz, 5.150-5.250 GHz (UNII-1), 5.250- 5.350 GHz (UNII-2) 5.470-5.600 GHz, 5.660-5.725 GHz (UNII-2e)</li> </ul>
<b>Performance</b>	<ul style="list-style-type: none"> <li>Stateful firewall throughput: 450 Mbps</li> <li>VPN throughput: 200 Mbps</li> <li>Recommended for small branches (up to 50 users)</li> <li>CAT 6 LTE Cellular Modem: 300 Mbps</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>Single 100W power supply</li> <li>Power idle/ max – 19W/ 89W</li> </ul>
<b>Physical dimensions</b>	<ul style="list-style-type: none"> <li>Dimensions 27mm x 178mm x 284mm</li> <li>Weight 1.18kg</li> </ul>
<b>Mounting</b>	<ul style="list-style-type: none"> <li>Suitable for desktop or wall mounting</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>Operating temperature: 32°F to 104°F (0°C to 40°C)</li> <li>Humidity: 5 to 95% non-condensing</li> </ul>







# Cisco Meraki Advanced Security

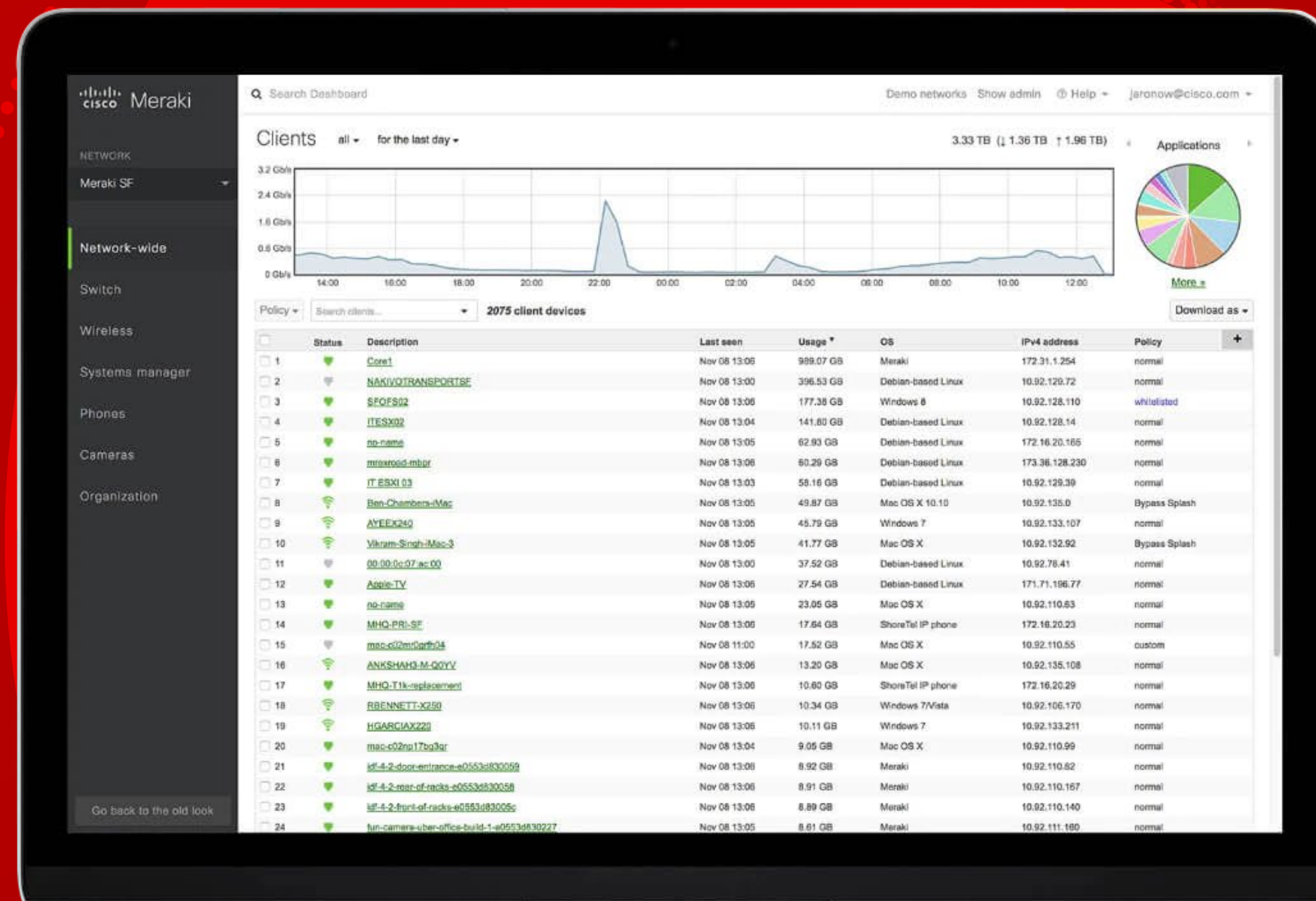
## In a nutshell

Cisco Meraki Advanced Security brings you enterprise-grade security without the hassle. We know cyber security can be a complex topic – especially for smaller businesses who may not have the same level of technical specialism as their larger business counterparts.

That's why we provide Cisco Meraki's Advanced Security features as standard with Complete Connectivity; making powerful, enterprise-grade security available to more businesses than ever before.

## How it works

We configure several key features out of the box, which you can customise at any time to suit your needs from the dashboard. You can be safe in the knowledge that you have an amazing level of security even if you do nothing to customise your business settings.







# Product highlights

Content filtering

Intrusion Detection and Prevention

Cisco Advanced Malware Protection (AMP)

Next-gen Firewall (Layer 3/Layer 7)

Traffic shaping and prioritisation

Geo-based firewall rules

True zero-touch provisioning and firmware updates

Site-to-site Auto VPN

Client VPN

Sub-second site-to-site VPN failover and dynamic path selection

Source based routing and IP-based local breakout

# Product features

We've explained some of the key features below, but you can find more information on all of these topics on the [Cisco Meraki website](#)

## What is content filtering?

Content filtering is a feature that allows you to block all websites that belong to certain categories of content. Rather than blocking individual websites, you can block 000's of pages in just a few clicks; e.g. block all websites relating to "Violence", "Drugs", "Adult and Pornography" and so on.

This helps ensure people aren't consuming your all-important bandwidth for non-business related or inappropriate activities, while keeping them more secure as certain types of website are more likely to host cyber-attack threats.

As standard and to help keep you more protected 'out of the box', Vodafone block a number of website categories.\* You can change these using your dashboard at any point.

## What is Intrusion Detection (IDS) and Prevention (IPS)?

Intrusion Prevention System (IPS) is a security feature designed to block unauthorised access to your network (whereas Intrusion Detection System, or IDS, is designed to alert you, but not stop unauthorised attempts). IPS is performed via a series of predefined security policies (called "rulesets") that determine the level of protection needed for your business.

You can decide whether to trade off some of your broadband speed for more enhanced protection or vice versa. These rulesets are refreshed daily to ensure protection against the latest vulnerabilities—including exploits, viruses, rootkits, and more—and these are pushed via the cloud to your device within an hour—no manual staging or patching needed by you, the customer.

As standard, Vodafone pre-configures IPS to be enabled and set at the "default" ruleset to ensure you're more secure, out of the box.

\*Blocked categories include Adult and Pornography, Alcohol and Tobacco, Bot Nets, Confirmed SPAM Source, Cult and Occult, Dating, Financial Services, Gambling, Games, Hacking, Hate and Racism, Hunting and Fishing, Illegal, Individual Stock and Tools, Keyloggers and Monitoring, Malware Sites, Marijuana, Nudity, Religion, SPAM URLs, Sex Education, Social Networking, Spyware and Adware, Swimsuits & Intimate Apparel, Unconfirmed SPAM sources, Violence, Weapons, Phishing and Other Frauds.







### What is Advanced Malware Protection?

Cisco's Advanced Malware Protection (a.k.a. "AMP") is the industry's leading malware protection solution. With a database of over 500 million known files and over 1.5 million new incoming file samples every day, AMP provides not only global threat protection but also extensive visibility during and after a malware attack.

Simply put, it provides automatic protection against millions of malicious files by blocking them from reaching your devices on your network, including new and emerging threats and automatic alerting for retrospective malware detection. As standard, Vodafone pre-enables this feature for you which you can change in your dashboard at any point.

[Find out more >](#)

### What is a next generation Layer 3/ Layer 7 Firewall?

A "Layer 7" firewall lets you sort your data 'traffic' according to which application or application service the traffic is trying to reach, and what the specific contents of that traffic are. In simple terms, it means you can block or restrict speed to specific websites; e.g. "block Facebook" or "limit download speed to 5 Mbps to Facebook". A Layer 3 firewall filters traffic based on the TCP/IP stack.

This approach is sometimes also referred to as packet filtering, because you're essentially allowing and blocking individual network packets depending on where they originated and which ports they want to talk to.

### What is traffic shaping and prioritisation?

In simple terms, traffic shaping allows you to control how different types of traffic behave. For example, you can set "speed restrictions" when accessing certain websites (rather than outright blocking their access altogether) or you can "prioritise" certain types of traffic; e.g. "all VoIP and Video conferencing".

This ensures that if your bandwidth becomes constrained, the network will make sure these services get the best quality of service possible for your connection; deprioritising less essential traffic. This is great if your business relies on Unified Communications platforms.







# Cisco Meraki MV12

## Indoor Cloud-Managed Smart Security Cameras



### In a nutshell

**The Meraki MV12 series brings physical security and advanced analytics together in a compact form factor.**

With powerful hardware, the MV12 smart cameras are built not only for physical safety and security but for business intelligence as well.

### How it works

The MV12 series places high-endurance storage locally on the camera, removing the Network Video Recorder (NVR) and Video Management System (VMS) from the equation.

Not only does this drastically simplify both installation and scaling, but it also eliminates a major network security vulnerability in IT infrastructure.

MV12 series cameras are equipped with an industry-leading processor, and have a 4MP sensor for recording in up to 1080P. The processor powers advanced analytics capabilities that previously required specialised software and heavy-duty hardware.

Harnessing the power of machine learning for computer vision, MV12 smart cameras can do real-time object detection, classification, and tracking. This compelling insight lays the foundation for more effective and efficient processes, like counting, journey pathing, and safe working practices.

MV12 cameras are fixed lens mini-dome cameras, with a sleek compact form factor. The MV12WE has a wide FoV.

**Meraki installation guide:**  
[MV12 installation](#)







# Product highlights

Fixed lens, mini-dome camera with a compact form factor

Three models designed to meet a variety of needs

Intelligent motion indexing with search engine

Built-in motion analytics like Motion Search, Motion Recap, and Motion Heatmaps

In-camera machine learning capability for intelligent object detection

No special software or browser plugins required

Cloud-augmented edge storage minimises physical infrastructure

Meraki dashboard simplifies operation

Secure, encrypted control architecture and storage

Secure boot and signed firmware backed by hardware security chip

Granular user access controls

Integrated 802.11ac wireless for low-cost upgrades using analogue cabling

Suitable for deployments of all sizes: 1-10,000+ cameras

Note: Each Meraki camera requires a license to operate

\*Storage duration dependent on encoding settings and camera storage model

\*\*Browser support for H.264 decoding required

# Specifications

## Camera

- 1/3" 4MP (2688 x 1520) progressive CMOS image sensor
- 128GB high endurance solid state storage
- 2.8mm focal length
- f/1.8 aperture
- Field of view: Horizontal 114°, Vertical 61°, Diagonal 132°
- Minimum illumination 0.18 Lux (standard recording) and 0.01 Lux (night mode)
- Built-in IR illuminators, effective up to 15m (49ft)
- S/N Ratio 52.9 dB

## Video

- 1080p HD video recording (1920 x 1080) with H.264 encoding up to 20fps
- Cloud augmented edge storage (locally stored video with metadata in the cloud)
- Optimised retention settings (scheduling and motion-based) for variable retention
- Up to 20 days of 24/7 continuous video storage per camera\*
- Direct live streaming with no client software (native browser playback)\*\*
- Stream video anywhere with automatic cloud proxy
- High dynamic range (HDR)
- Audio recording supported with built-in microphone







## Networking and Wireless

- 1x 10/100/1000 Base-T Ethernet (RJ45)
- DSCP traffic marking
- Supported frequency bands (country-specific restrictions apply):
  - 2.4 GHz 802.11b/g/n radio
    - > 2.412 - 2.484 GHz
  - 5 GHz 802.11a/n/ac radio
    - > 5.150 - 5.250 GHz (UNII-1)
    - > 5.250 - 5.350 GHz (UNII-2)
    - > 5.470 - 5.600, 5.660 - 5.725 GHz (UNII-2e)
    - > 5.725 - 5.825 GHz (UNII-3)
- 1x1 with one spatial stream
- MU-MIMO support
  - > 20 and 40 MHz channels (802.11n)
  - > 20, 40, and 80 MHz channels (802.11ac)
- Up to 256 QAM on both 2.4 GHz and 5 GHz bands
- Integrated omni-directional antennas (4.4 dBi gain at 2.4 GHz, 6.3 dBi gain at 5 GHz)
- 2.4 GHz Bluetooth Low Energy (BLE) radio

## Power

- Power consumption 12.95W maximum via 802.3af PoE

## Environment

- Temperature: 0°C - 40°C (32°F - 104°F)

## Data and network security

- Full disk encryption (AES 256-bit)
- Automatically purchased and provisioned TLS certificates (publicly-signed)
- Management encryption and two-factor authentication
- Wireless security:
  - > WPA, WPA2-PSK, WPA2-Enterprise with 802.1X EAP-TTLS
  - > TKIP and AES encryption

## Physical Characteristics

- Dimensions 106mm x 74mm (diameter x height)
- Weight 286g
- Female RJ45 Ethernet connector
- Status LED
- Reset button

## In the box

- Quick start and installation guide
- MV camera hardware
- Wall mounting kit







# Cisco Meraki MV72

## Outdoor Cloud-Managed Smart Security Cameras



### In a nutshell

The Meraki MV72 series brings physical security and advanced analytics together in a dome form factor suitable for outdoor and demanding deployments. The powerful built-in processor (the same kind found in many of today's smartphones) and innovative architecture minimises physical infrastructure as well as software requirements.

**MV72 not only ensures physical safety and security but provides business intelligence, all in a refreshingly simple package.**

### How it works

The MV72 series places high-endurance storage locally on the camera, removing the Network Video Recorder (NVR) and Video Management System (VMS) from the equation. Not only does this drastically simplify both installation and scaling, but it also eliminates a major network security vulnerability in IT infrastructure.

MV72 smart cameras are equipped with an industry-leading processor, and have a 4MP sensor for recording in up to 1080P. The processor powers advanced analytics capabilities that previously required specialised software and heavy-duty hardware.

Harnessing the power of machine learning for computer vision, MV72 smart cameras can do real-time object detection, classification, and tracking of people and vehicles. This compelling insight lays the foundation for more effective and efficient processes, journey pathing, and safe working practices.

MV72 series cameras are varifocal dome cameras, capable of up to 3x optical zoom. With IP67 and IK10+ rating, they are made to endure a variety of outdoor and other demanding environments. This, combined with an attractive industrial design and easy installation makes it a natural fit for deployments ranging from school yards to manufacturing, and everything in between.

**Meraki installation guide:**  
[MV72 installation](#)







# Product highlights

Varifocal lens, dome camera with 36-112° horizontal FoV

IK10+ and IP67 rated for impact resistance and ingress protection

Intelligent motion indexing with search engine

Built-in motion analytics like Motion Search, Motion Recap, and Motion Heatmaps

In-camera machine learning capability for intelligent object detection

No special software or browser plugins required

Cloud-augmented edge storage minimises physical infrastructure

Meraki dashboard simplifies operation

Secure, encrypted control architecture and storage

Secure boot and signed firmware backed by hardware security chip

Granular user access controls

Integrated 802.11ac wireless for easy upgrades from analogue

IR illumination up to 30m or 98ft

Suitable for deployments of all sizes, 1-10,000+ cameras

Note: Each Meraki camera requires a license to operate

\*Storage duration dependent on encoding settings and camera storage model

\*\*Browser support for H.264 decoding required

# Specifications

## Camera

- 1/3" 4MP (2688x1520) progressive CMOS image sensor
- 256GB high endurance solid state storage (MV72)
- 3-9mm focal length
- f/1.2-2.3 aperture
- Field of view: Horizontal 36-112°, Vertical 20-57°, Diagonal 42° - 138°
- Lens adjustment range: Tilt: 65°, Rotation: +/- 90°, Pan: 354°
- 1/30s to 1/32,000s shutter speed
- Minimum illumination 0.18 Lux (standard recording) and 0.01 Lux (night mode)
- Built-in IR illuminators, effective up to 30m (98ft)
- Heating elements

## Video

- 1080p HD video recording (1920x1080) with H.264 encoding up to 20fps (MV72)
- Cloud augmented edge storage (locally stored video with metadata in the cloud)
- Optimised retention settings (scheduling and motion-based) for variable retention
- Up to 45 days (MV72) of 24/7 continuous video storage per camera\*
- Direct live streaming with no client software (native browser playback)\*\*
- Stream video anywhere with automatic cloud proxy
- High dynamic range (HDR)
- Audio recording supported with built-in microphone







## Networking and Wireless

- 1x 10/100/1000 Base-T Ethernet (RJ45)
- DSCP traffic marking
- Supported frequency bands (country-specific restrictions apply):
  - 2.4 GHz 802.11b/g/n radio
    - > 2.412 - 2.484 GHz
  - 5 GHz 802.11a/n/ac radio
    - > 5.150 - 5.250 GHz (UNII-1)
    - > 5.250 - 5.350 GHz (UNII-2)
    - > 5.470 - 5.600, 5.660 - 5.725 GHz (UNII-2e)
    - > 5.725 - 5.825 GHz (UNII-3)
- 1x1 with one spatial stream
- MU-MIMO support
  - > 20 and 40 MHz channels (802.11n)
  - > 20, 40, and 80 MHz channels (802.11ac)
- Up to 256 QAM on both 2.4 GHz and 5 GHz bands
- Integrated omni-directional antennas (4.4 dBi gain at 2.4 GHz, 6.3 dBi gain at 5 GHz)
- 2.4 GHz Bluetooth Low Energy (BLE) radio

## Power

- Power consumption when not using heater 12.95W maximum via 802.3af PoE
- Power consumption when using heater 25.5W maximum via 802.3at PoE

## Environment

- Temperature: 0°C - 40°C (32°F - 104°F)
- Temperature: -40°C - 50°C (-40°F - 122°F)\*

## Data and network security

- Full disk encryption (AES 256-bit)
- Automatically purchased and provisioned TLS certificates (publicly-signed)
- Management encryption and two-factor authentication
- Wireless security:
  - > WPA, WPA2-PSK, WPA2-Enterprise with 802.1X EAP-TTLS
  - > TKIP and AES encryption

## Physical Characteristics

- Dimensions 165mm x 103mm (diameter x height)
- Weight 1247g
- Female RJ45 Ethernet connector
- Multicolour, multifunction status LED
- Reset button

## Ratings

- IK10+ vandal-resistance
- IP67 weather-proofing

## In the box

- Quick start and installation guide
- MV camera hardware
- Wall mounting kit

\*The MV72 internal heater will automatically turn on at lower temperatures to preserve normal camera operation







# Cisco Meraki Wireless Access Points

## In a nutshell

The Cisco Meraki Wireless MR solutions are cloud-managed 2 x 2:2 802.11ax wireless access point that raise the bar for wireless performance and efficiency. Designed for next-generation deployments in offices, schools, hospitals, shops, and hotels, they offer high throughput, enterprise-grade security, and simple management. The MR36 is an indoor access point whereas the MR76 is suitable for rugged, outdoor environments.

They provide a maximum of 1.7 Gbps aggregate frame rate with concurrent 2.4 GHz and 5 GHz radios. A dedicated third radio provides real-time WIDS/WIPS with automated RF optimisation, and a fourth integrated radio delivers Bluetooth scanning and beaconing.

With the combination of cloud management, high performance hardware, multiple radios, and advanced software features, they make an outstanding platform for the most demanding of uses—including high-density deployments and bandwidth or performance-intensive applications like voice and high-definition video.

## How it works

Management of the Wireless Access Points is performed through the Meraki cloud, with an intuitive browser-based interface that enables rapid deployment without time consuming training or costly certifications.

Because they are self-configuring and managed over the web, they can be deployed at a remote location in a matter of minutes, even without on-site IT staff.

24/7 monitoring via the Meraki cloud delivers real-time alerts if a network encounters problems. Remote diagnostic tools enable immediate troubleshooting over the web so that distributed networks can be managed with minimum hassle.

Their firmware is automatically kept up-to-date via the cloud. New features, bug fixes, and enhancements are delivered seamlessly over the web. This means no manual software updates to download or missing security patches to worry about.

### **Meraki installation guide:**

[MR36 installation](#)

[MR76 installation](#)



MR36



MR76







# Product highlights

2 x 2:2 MU-MIMO 802.11ax

1.7 Gbps dual-radio aggregate frame rate\*

24 x 7 real-time WIDS/WIPS and spectrum analytics via dedicated third radio

Integrated Bluetooth Low Energy Beacon

Integrated scanning radio

Enhanced transmit power and receive sensitivity

Integrated enterprise security and guest access

Application-aware traffic shaping

Optimised for voice and video

Self-configuring, plug-and-play deployment

Sleek design blends into office environments

Full-time Wi-Fi location tracking via dedicated third radio

# Product features

## Dual-radio aggregate frame rate of up to 1.7 Gbps\*

5 GHz 2 x 2:2 radio and 2.4 GHz 2 x 2:2 radio offer a combined dual-radio aggregate frame rate of 1.7 Gbps\*, with up to 1,201 Mbps in the 5 GHz band and 573 Mbps in the 2.4 GHz band. Technologies like transmit beamforming and enhanced receive sensitivity allow the MR to support a higher client density than typical enterprise-class access points, resulting in better performance for more clients, from each AP.

## Multi User Multiple Input Multiple Output (MU-MIMO)

With support for features of 802.11ax, the MR offers MU-MIMO and OFDMA for more efficient transmission to multiple clients. Especially suited to environments with numerous mobile devices, MU-MIMO enables multiple clients to receive data simultaneously. This increases the total network performance and improves the end user experience.

## Dedicated third radio delivers 24/7 wireless security and RF analytics

The MR's dedicated dual-band scanning and security radio continually assess the environment, characterising RF interference and containing wireless threats like rogue access points. There's no need to choose between wireless security, advanced RF analysis, and serving client data—a dedicated third radio means that all functions occur in real time, without any impact to client traffic or AP throughput.

## Bluetooth Low Energy Beacon and scanning radio

An integrated fourth Bluetooth radio provides seamless deployment of BLE Beacon functionality and effortless visibility of Bluetooth devices. The MR enables the next generation of location-aware applications while future proofing deployments, ensuring it's ready for any new customer engagement strategies.

## Automatic cloud-based RF optimisation

The MR's sophisticated and automated RF optimisation means that there is no need for the dedicated hardware and RF expertise typically required to tune a wireless network. The RF data collected by the dedicated third radio is continuously fed back to the Meraki cloud. This data is then used to automatically tune the channel selection, transmit power, and client connection settings for optimal performance under even the most challenging RF conditions.

## Integrated enterprise security and guest access

The MR features integrated, easy-to-use security technologies to provide secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and Enterprise authentication with 802.1X and Active Directory integration provide wired-like security while still being easy to configure. One-click guest isolation provides secure, Internet-only access for visitors. PCI compliance reports check network settings against PCI requirements to simplify secure retail deployments.

\*Refers to maximum over-the-air data frame rate capability of the radio chipset, and may exceed data rates allowed by IEEE 802.11ax operation.







### Application-aware traffic shaping

The MR includes an integrated layer 7 packet inspection, classification, and control engine, enabling the configuration of QoS policies based on traffic type, helping to prioritise mission-critical applications while setting limits on recreational traffic like peer-to-peer and video streaming. Policies can be implemented per network, per SSID, per user group, or per individual user for maximum flexibility and control.

### Voice and video optimisations

Industry standard QoS features are built-in and easy to configure. Wireless MultiMedia (WMM) access categories, 802.1p, and DSCP standards support all ensure important applications get prioritised correctly, not only on the MR, but on other devices in the network. Unscheduled Automatic Power Save Delivery (U-APSD) and new Target Wait Time features in 802.11ax clients ensure minimal battery drain on wireless VoIP phones.

### Self-configuring, self-maintaining, always up-to-date

When plugged in, the MR automatically connects to the Meraki cloud, downloads its configuration, and joins the appropriate network. If new firmware is required, this is retrieved by the AP and updated automatically. This ensures the network is kept up-to-date with bug fixes, security updates, and new features.

### Advanced analytics

Drilling down into the details of network usage provides highly granular traffic analytics. Visibility into the physical world can be enhanced with journey tracking through location analytics. Visitor numbers, dwell time, repeat visit rates, and track trends can all be easily monitored in the dashboard and deeper analysis is enabled with raw data available via simple APIs.







# Cisco Meraki MR36 Wireless Access Points Specifications

## Radios

- 2.4 GHz 802.11b/g/n/ax client access radio
- 5 GHz 802.11a/n/ac/ax client access radio
- 2.4 GHz and 5 GHz dual-band WIDS/WIPS, spectrum analysis, and location analytics radio
- 2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and BLE scanning support
- Concurrent operation of all four radios
- Supported frequency bands (country-specific restrictions apply):
  - > 2.412-2.484 GHz
  - > 5.150-5.250 GHz (UNII-1)
  - > 5.250-5.350 GHz (UNII-2)
  - > 5.470-5.600, 5.660-5.725 GHz (UNII-2e)
  - > 5.725 -5.825 GHz (UNII-3)

## 802.11ax, 802.11ac Wave 2 and 802.11n Capabilities

- DL-OFDMA\*\*, UL-OFDMA\*\*, TWT support\*\*, BSS Colouring\*\*
- 2 x 2 multiple input, multiple output (MIMO) with two spatial streams
- SU-MIMO, UL MU-MIMO\*\* and DL MU-MIMO support
- Maximal ratio combining (MRC) and beamforming
- 20 and 40 MHz channels (802.11n); 20, 40, and 80 MHz channels (802.11ac Wave 2); 20, and 80 MHz channels (802.11ax)
- Up to 1024-QAM on both 2.4 GHz and 5 GHz bands
- Packet aggregation

## Power

- Power over Ethernet: 37 - 57 V (802.af compatible)
- Power consumption: 15W max (802.3af)
- Power over Ethernet injector included as standard

## Mounting

- All standard mounting hardware included
- Desktop, ceiling, and wall mount capable
- Ceiling tile rail (9/16, 15/16 or 1 1/2" flush or recessed rails), assorted cable junction boxes
- Bubble level on mounting cradle for accurate horizontal wall mounting

## Physical security

- Two security screw options (included) (10 mm long and 2.5 mm diameter and 4.7 mm head)
- Kensington lock hard point
- Concealed mount plate with anti-tamper cable bay

## Environment

- Operating temperature: 32 °F to 104 °F (0 °C to 40 °C)
- Humidity: 5 to 95% non-condensing







### Physical dimensions

- 9.84" x 4.72" x 1.42" (25 cm x 12 cm x 3.6 cm), not including desk mount feet or mount plate
- Weight: 492 g

### Antenna

- Integrated omni-directional antenna (5.4 dBi gain at 2.4 GHz, 6 dBi gain at 5 GHz)
- Individual antenna elements for each radio

### Interfaces

- 1 x 10/100/1000 BASE-T Ethernet (RJ45)
- 1 x DC power connector (5.5 mm x 2.5 mm, centre positive)

### Security

- Integrated Layer 7 firewall with mobile device policy management
- Real-time WIDS/WIPS with alerting and automatic rogue AP containment with Air Marshal
- Flexible guest access with device isolation
- VLAN tagging (802.1q) and tunnelling with IPsec VPN
- PCI compliance reporting
- WEP\*\*\*, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X, WPA3 - Personal\*\*, WPA3 - Enterprise\*\*, WPA3 - Enhanced Open (OWE)\*\*
- EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM
- TKIP and AES encryption
- Enterprise Mobility Management (EMM) and Mobile Device Management (MDM) integration
- Cisco ISE integration for Guest access and BYOD Posturing

### Quality of Service

- Advanced Power Save (U-APSD)
- WMM Access Categories with DSCP and 802.1p support
- Layer 7 application traffic identification and shaping

### Mobility

- PMK, OKC, and 802.11r for fast Layer 2 roaming
- Distributed or centralised Layer 3 roaming

### Analytics

- Embedded location analytics reporting and device tracking
- Global L7 traffic analytics reporting per network, per device, and per application

### LED Indicators

- 1 power/booting/firmware upgrade status

### Regulatory

- RoHS
- For additional country-specific regulatory information, please contact Meraki sales

\*\*Software features can be enabled via firmware updates







# Cisco Meraki MR76 Wireless Access Points Specifications

## Radios

- 2.4 GHz 802.11b/g/n/ax client access radio
- 5 GHz 802.11a/n/ac/ax client access radio
- 2.4 GHz and 5 GHz dual-band WIDS/WIPS, spectrum analysis, and location analytics radio
- 2.4 GHz Bluetooth Low Energy (BLE) radio with Beacon and Bluetooth Low Energy scanning support
- Concurrent operation of all four radios
- Supported frequency bands (country-specific restrictions apply):
  - > 2.412-2.484 GHz
  - > 5.150-5.250 GHz (UNII-1)
  - > 5.250-5.350 GHz (UNII-2)
  - > 5.470-5.600, 5.660-5.725 GHz (UNII-2e)
  - > 5.725 -5.825 GHz (UNII-3)

## Antenna

- List of compatible antennas: MA-ANT (multi-band, omni-directional antenna)

## 802.11ax, 802.11ac Wave 2 and 802.11n Capabilities

- DL-OFDMA\*\*, UL-OFDMA\*\*, TWT support\*\*, BSS Colouring\*\*
- 2 x 2 multiple input, multiple output (MIMO) with two spatial streams
- SU-MIMO, UL MU-MIMO\*\* and DL MU-MIMO support
- Maximal ratio combining (MRC) and beamforming
- 20 and 40 MHz channels (802.11n); 20, 40, and 80 MHz channels (802.11ac Wave 2); 20, 40 and 80 MHz channels (802.11ax)
- Up to 1024-QAM on both 2.4 GHz and 5 GHz bands
- Packet aggregation

## Power

- Power over Ethernet: 37 - 57 V (802.3af compatible)
  - Power consumption: 15W max (802.3af)
  - Power over Ethernet injector included as standard
- Note: Actual power consumption may vary depending on the AP usage

## Interfaces

- 1x 10/100/1000 BASE-T Ethernet (RJ45)

## Mounting

- All standard mounting hardware included
- Mounts to walls and vertical poles.

## Physical security

- Two security screws
- Concealed mount plate with anti-tamper cable bay

## Environment

- Operating and storage temperature: -40 ÅF to 131 ÅF (-40 ÅC to 55 ÅC)
- Operating and storage humidity: 5 to 95% non-condensing
- IP67 Environmental rating







## Reliability

- Mean Time Between Failure (MTBF): 1,315,612hrs at +25°C operating temperature

## Physical dimensions

- 11.81" x 6.02" x 2.16" (30.0 cm X 15.3 cm X 5.5 cm), not including cable gland, mounts and antennas
- Weight: 1.34 kg

## Security

- Integrated Layer 7 firewall with mobile device policy management
- Real-time WIDS/WIPS with alerting and automatic rogue AP containment with Air Marshal
- Flexible guest access with device isolation
- VLAN tagging (802.1q)
- PCI compliance reporting
- WEP\*\*, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X, WPA3 - Personal\*\*, WPA3 - Enterprise\*\*, WPA3 - Enhanced Open (OWE)\*\*
- EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM
- TKIP and AES encryption
- Enterprise Mobility Management (EMM) and Mobile Device Management (MDM) integration
- Cisco ISE integration for Guest access and BYOD Posturing

## Quality of Service

- Advanced Power Save (U-APSD)
  - WMM Access Categories with DSCP and 802.1p support
  - Layer 7 application traffic identification and shaping
- Note: Actual power consumption may vary depending on the AP usage.

## Mobility

- PMK, OKC, and 802.11r for fast Layer 2 roaming
- Distributed or centralised layer 3 roaming

## Analytics

- Embedded location analytics reporting and device tracking
- Global L7 traffic analytics reporting per network, per device, and per application

## LED Indicators

- 1 power/booting/firmware upgrade status

## Regulatory

- RoHS
- For additional country-specific regulatory information, please contact Meraki sales

## Compliance and standards

### IEEE standards

- 802.11a, 802.11ac, 802.11ax, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11k, 802.11n, 802.11r, and 802.11u\*\*\*

### Safety approvals

- CSA and CB 60950 and 62368
- Conforms to UL 2043 (Plenum Rating)

### Radio approvals

- Europe: EN 300 328, EN 301 893

### Installation guide

- For instructions on how to install and configure MR76 access points please refer to the MR76 Installation Guide.

\*\*Software features can be enabled via firmware updates. \*\*\*Feature can be enabled for required networks.







Be one of the first to make the most of this exciting connectivity partnership that's built for future-proofed SMEs

# What next?

This professional grade broadband package from Vodafone and Cisco Meraki will help your business stay connected and in control.

Contact us to talk about how we can bring Complete Connectivity to your business.

**10-49 employees**  
**0808 256 4641**

**50-249 employees**  
**0808 296 6105**







**vodafone**  
**business**

Together we can

Vodafone Limited is authorised and regulated by the Financial Conduct Authority for consumer credit lending and insurance distribution activity (Financial Services Register No. 712210) Registered in England and Wales. Company No 01471587. Registered Office: Vodafone House, The Connection, Newbury, Berkshire, RG14 2FN.