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bouchecousue
conseil en informatique

BoucheCousue est une société de conseil en informatique basée à Paris et **revendeur agréé Cisco Meraki** depuis 2011.

Si vous avez des questions, un projet réseau pouvant bénéficier de la solution & des produits Cisco Meraki, **n'hésitez pas à nous contacter :**

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10 Ways

Cisco Meraki Switches
Make Life Easier

10 Ways Cisco Meraki Switches Make Life Easier

1. Preconfigure switches for zero-touch deployment
2. Manage all switch ports from a single pane of glass
3. Run remote cable tests and packet captures
4. Identify and locate switch ports
5. Identify bandwidth hogs
6. Save energy and increase wired security
7. Contain rogue DHCP servers
8. Lock down switch access
9. Keep current with seamless updates
10. Spot network trends

1. Preconfigure switches for zero-touch deployment

Cisco Meraki MS switches are 100% cloud-managed and can be fully configured from any Internet-accessible location before ever being powered on. Simply add the switch serial number (or PO number for large deployments) to your network using the Meraki web-based dashboard. Once added, the switch is fully configurable. When the switch is first powered on and connected to the Internet, it will pull its settings from the cloud.

Add switches

Add switches from your organization's inventory. When you claim an order by order number, the devices in the order will be added to your inventory. When you claim a device by its serial number, that device will be added to your inventory. Once in your inventory, you can add devices to your network(s).

Q2AP-7VDF-DTWP

Claim

<input type="checkbox"/> MAC address ▲	Serial number	Model	Claimed on	Order number	Country
<input checked="" type="checkbox"/> 00:18:0a:53:01:13	Q2AP-7VDF-DTWP	MS22	8/15/2013 12:24 PM		

Add switches

Adding new MS switch hardware to a branch location in the Cisco Meraki dashboard.

Switches for the last day

Tag Move Clone

Search switches...

1 switch

Add switches Down

<input type="checkbox"/>	Status ▲	Name	Connectivity	LAN IP	MAC address	Model	# active ports	# ports	Tags
<input type="checkbox"/>		00:18:0a:56:02:e6		N/A	00:18:0a:56:02:e6	MS22	- / 52	52	recently-added

Newly-added switches are fully configurable in the Cisco Meraki dashboard — even before being powered on.

True zero-touch deployment divorces switch setup from the precondition of physical hardware access. This frees technical staff from travel obligations to remote sites to manually configure switching infrastructure, saving time and money.

2. Manage all switch ports from a single pane of glass

Imagine: you need to reset ports numbered 20-48 (if they are connected to MR24 access points) on all of your switches. You must enable PoE, set a power-saving port schedule, prune all VLANs except VLAN 10, and ensure that these are trunk — not access — ports. How long would that take you?

Meraki MS switches let you succeed in this scenario from your office chair. The dashboard supports intelligent search queries on variables like port type, VLAN, uplink status, port access policy status, and tags:

Switch ports

for the last day

EditAggregateSplitTag

vlan:"110" AND link:"1 Gbps"

help

21 switch ports

Switch / Port	Type	VLAN	Link	POE	Enabled	Status
<input type="checkbox"/> BD Data Distribution B/7	access	110	Auto negotiate (1 Gbps)		enabled	
<input type="checkbox"/> BD Data Distribution B/14	access	110	Auto negotiate (1 Gbps)		enabled	
<input type="checkbox"/> FD 5.2.3 / 5	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.3 / 21	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.3 / 22	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.4 / 1	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.4 / 23	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.4 / 47	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.6 / 1	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.7 / 6	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.7 / 30	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	
<input type="checkbox"/> FD 5.2.9 / 14	access	110, voice 104	Auto negotiate (1 Gbps)	enabled	enabled	

Dynamically winnow a list of switch ports across models and physical switch locations.

You can specify a subset of switch interfaces (up to 10,000 ports) by using these search criteria and then modify these selected ports at once.

3. Run remote cable tests and packet captures

The Cisco Meraki dashboard offers real-time diagnostics and tools to troubleshoot your MS switches. You can easily perform cable tests to ascertain cable length and to check the health of the wire connecting a client device to your switch.

Ports | [Configure ports on this switch](#)

13

15

17

19

21

23

25

27

29

31

33

35

37

39

41

43

45

47

2

4

6

8

10

12

14

16

18

20

22

24

26

28

30

32

34

36

38

40

42

44

46

48

49

50

51

52

1

3

5

7

9

11

13

15

17

19

21

23

25

27

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39

41

43

45

47

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4

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10

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16

18

20

22

24

26

28

30

32

34

36

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42

44

46

48

49

50

51

52

[Show port list »](#)

Live tools

Cable test

Forwarding table

Wake client

Ping

Throughput

Blink LEDs

Reboot switch

Cable test ⓘ

Warning: this test will disrupt traffic to 100 or 10 Mbit devices.

Ports (eg. 1 or 1,2,3 or 1 - 3):

Several real-time diagnostic tools are available within the dashboard, including cable tests.

Deep visibility built into the clients and traffic passing through your fabric let you quickly surmise the layer 1-3 health status of connected devices, whether they’ve received IP addresses, are on the appropriate VLAN, etc.

Clients > NLEGGEX230 ⓘ

Status:

currently connected

Switch: [FD 5.2.4](#)

Port: 23

Device type: Wistron... Windows 7/Vista

[event log](#) | [packet capture](#) | [add note](#)

Network

IP address: 10.92.110.186 dynamic

MAC address: 3c:97:0e:9e:31:b3

VLAN: 110 — DATA - 5th Floor

Port forwarding: none

1:1 NAT IPs: none

edit forwarding »

Ping ▶

80 ms

40 ms

0 ms

Loss rate: —

Average latency: —

Quickly see status for client devices passing traffic through your switch fabric.

You also can take live, streaming packet captures from anywhere in the world you have Internet access. The Cisco Meraki dashboard lets you display packet captures within the dashboard, save captures to a PCAP file for later viewing, or stream the PCAP file to CloudShark, a cloud-based packet analyzer

Packet capture BETA for switches ▾

Switch:

Ports:

Output: ⓘ

Duration (secs):

Filter expression:

Start capture

Sample filter expressions

host 10.1.27.253
packets to and from ip address 10.1.27.253

host 10.1.27.253 and port 53
packets to and from ip address 10.1.27.253 and TCP or UDP port 53 (DNS)

icmp[icmptype] != icmp-echo and icmp[icmptype] != icmp-echo-reply
all ICMP packets that are not echo requests/replies (i.e., not ping packets)

ether host 11:22:33:44:55:66
packets to and from ethernet host 11:22:33:44:55:66

Client traffic statistics will not be recorded while the packet capture is running.

[Packet capture logs](#)

The packet capture tool allows deep analysis of traffic flowing through switch interfaces.

4. Identify and locate switch ports

Locating where an Ethernet wall jack terminates is as easy as connecting your laptop to the jack, opening a web browser, and navigating to **switch.meraki.com**. This URL directs to a locally-hosted page on the upstream switch that advertises the switch's name, model, MAC, IP, and on which port the wall jack terminates.

Local status

Overview | [Uplink configuration](#) | [Switch ports status](#) | [Switch ports configuration](#)

Switch Setup

This switch is registered on the [Meraki cloud](#).
Name: FD 5.2.1
Network name: Meraki Corp - switch
Product model: MS42P
Hardware address: 00:18:0a:8d:c0:12
IP: 10.92.129.179

Your Connection

IP: 10.92.111.37
MAC: 7c:c3:a1:8d:c0:12
VLAN: 110
[Port on this switch](#): 36

Internet Connectivity

This switch is connected to the Internet.

Cloud Management Connectivity

This switch is successfully connected to the Meraki cloud.

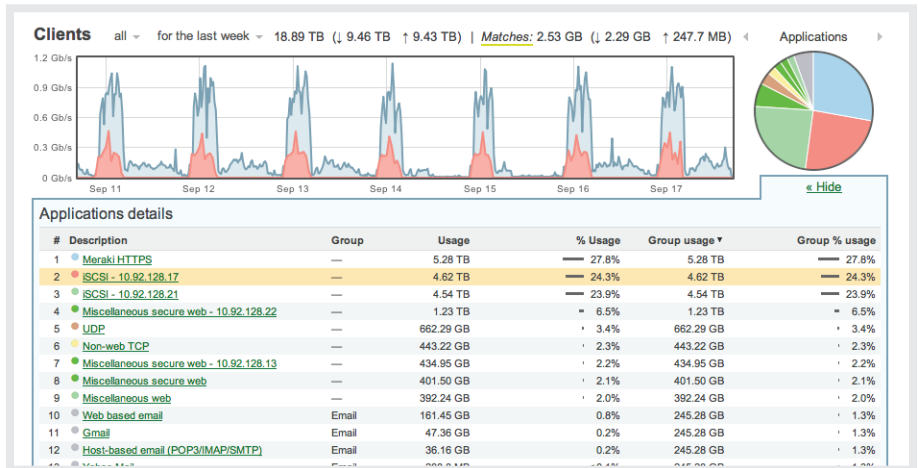
Firmware

This switch's firmware is up to date.

This local switch page shows the tested wall jack terminates on port 36 of switch FD 5.2.1.

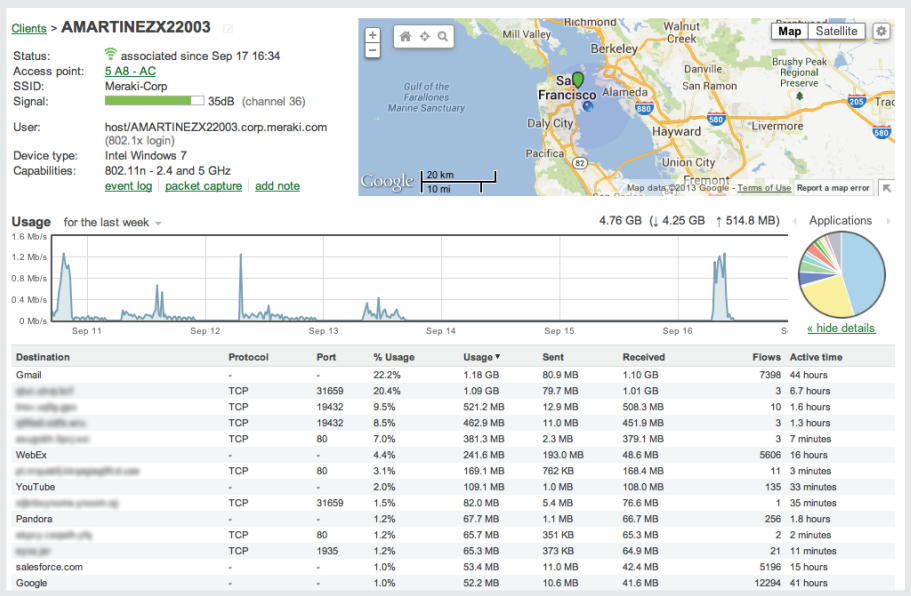
5. Identify bandwidth hogs

The Meraki dashboard will display sortable, searchable information on clients, devices, and application usage. A Google-like contextual search allows you to dynamically filter clients by device type (e.g. “iPad” or “Android HTC”), operating system, MAC, IP address, username, or device name.



Deep layer 7 visibility gives MS switches insight into the types of devices and applications passing traffic.

Drill down deeper into any application or connected client to view specific usage patterns for it.



The Meraki dashboard displays rich details about clients and applications.

6. Save energy and increase wired security

You may want to disable ports to save energy during off-peak hours or to prevent devices from accessing your network. Set schedules for a range of ports based on pre-configured templates or any timing of your choosing.

Port schedules

Local time zone: America - Los Angeles (You can set this on [Alerts & administration](#))

Energy Savings

used by 0 ports

+

×

New Port Schedule

used by 0 ports

-

×

Templates:

[8 to 5 daily](#)

[8 to 5 on weekdays only](#)

[weekdays only](#)

[always on](#)

[always off](#)

Day	Status	During	0:00	4:00	8:00	12:00	16:00	20:00
Monday	<div>enabled</div>	<div>8:00</div> <div>17:00</div>			<div>on</div>	<div>on</div>	<div>on</div>	
Tuesday	<div>enabled</div>	<div>8:00</div> <div>17:00</div>			<div>on</div>	<div>on</div>	<div>on</div>	
Wednesday	<div>enabled</div>	<div>8:00</div> <div>17:00</div>			<div>on</div>	<div>on</div>	<div>on</div>	
Thursday	<div>enabled</div>	<div>8:00</div> <div>17:00</div>			<div>on</div>	<div>on</div>	<div>on</div>	
Friday	<div>enabled</div>	<div>8:00</div> <div>17:00</div>			<div>on</div>	<div>on</div>	<div>on</div>	
Saturday	<div>disabled</div>	<div>6:30</div> <div>24:00</div>	<div>on</div>	<div>on</div>	<div>on</div>	<div>on</div>	<div>on</div>	<div>on</div>
Sunday	<div>disabled</div>	<div>0:00</div> <div>24:00</div>	<div>on</div>	<div>on</div>	<div>on</div>	<div>on</div>	<div>on</div>	<div>on</div>

[Add a new port schedule](#)

Port schedules prevent access to the switching fabric at the times you specify.

Applying port schedules to a range of switch interfaces takes less than 2 minutes using the Meraki dashboard. Apply policies to any port, regardless of switch model or geographic location, from anywhere in the world you have Internet access.

7. Contain rogue DHCP servers

MS switches perform DHCP snooping to identify which devices are responding as DHCP servers on your network, letting you automatically detect and block unauthorized, rogue devices. In the image below, for example, we've blocked all DHCP servers by default except for our authorized server with MAC address aa:bb:cc:dd:ee:ff. This secures us from rogue servers which may be added to the network at any time.

DHCP servers

Default DHCP server policy

Block DHCP servers

Allowed DHCP servers

aa:bb:cc:dd:ee:ff

DHCP servers seen in the last month

Description	MAC	VLAN
Meraki MX80 Testbed	00:18:0a:11:04:e4	10

“Set it and forget it” rogue DHCP server containment, built into every Meraki MS switch.

8. Lock down switch access

All Meraki MS switches support 802.1X wired authentication, enabling port-based access policies that enforce authentication via user credentials. But what if some of your devices do not support 802.1X?

Enter MAC-based RADIUS authentication. When enabled, this feature requires authentication for each MAC address accessing a switch port, letting you dictate port access at the device level.

Access policies

Access policies

Name

VoIP access

RADIUS servers

#	Host	Port	Secret	Actions
1	10.1.1.3	90	Show secret ⛶ ✕ Test

Add a server

RADIUS testing ⓘ

RADIUS testing enabled ⌵

Access Policy Type

✓ 802.1X

MAC-Based RADIUS

Disabled

Guest VLAN

Disabled

Switch ports

There are currently 0 Switch ports using this policy

Remove this access policy

Add an access policy

Secure your wired network by requiring user or device-based authentication.

9. Keep current with seamless updates

Firmware and dashboard updates are pushed seamlessly from the cloud to all your Cisco Meraki devices without any pre-staging, manual downloads, or trips onsite to install patches. Every quarter, new features are released; this feature velocity future-proofs your hardware investment.

You choose the date and time to apply your switches' firmware updates — or you can opt out entirely.

Firmware upgrades

Try beta firmware

No

[What is this?](#)

Upgrade window

Wednesday

12am

[What is this?](#)

Switches upgrade

The switches in this network are configured to run the latest available firmware.
Last upgraded on Saturday, June 22, 2013 at 20:43 PDT.

☒ Upgrade as scheduled.

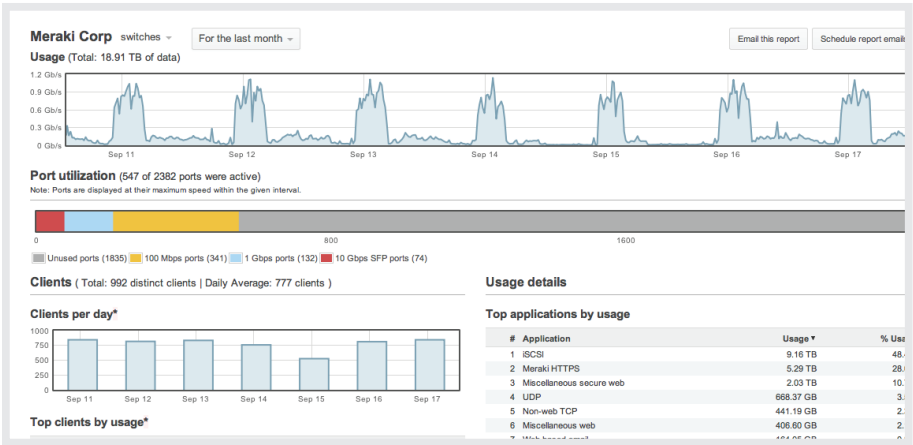
☐ Reschedule the upgrade to: at PST

☐ Perform the upgrade now.

Seamless updates save you time otherwise spent manually downloading and applying patches.

10. Spot network trends

Summary reports display useful trend digests. Quickly spot top applications, clients, and devices that are consuming bandwidth over the period of the report. Email a copy of the report to yourself or others, or schedule a repeating report to be sent to your inbox.



Summary reporting distills large amounts of statistical detail into a “big picture” that is easily digested and shared.

Meraki MS switches provide detailed, searchable logs as well as digestible summary reports on trend statistics. Change logs track every configuration made to your switches, by whom, by date. Built-in, Google-like contextual search lets you quickly winnow change logs to only those events you want to see.

Meraki Inc. change log				
"may 09" switch VLAN: 128 cl 3 changes in 4894 changes dating back to Jul 25 2012 load more changes				
Time (UTC) ▼	Admin	Network	Old value	New value
May 09 22:26	Chris Hilsenbeck	Meraki Corp - switch	Removed: Native VLAN: 1 all Trunk	Added: VLAN: 128 Access Voice VLAN:

We’ve searched here for all changes to our switching fabric performed on May 9th by “Chris” that affected VLAN 128.





Vous souhaitez en savoir plus sur Cisco Meraki et essayer la solution gratuitement? Plusieurs options s'offrent à vous.

En autonomie:

- **Webinar :** Participez à un webinar Cisco Meraki en cliquant [ici](#) et recevez ultérieurement un équipement gratuit¹ (comme une borne WiFi, un switch)
- **Try & Buy :** Essayez le matériel Cisco Meraki gratuitement en cliquant [ici](#). A la fin de votre essai vous pouvez décider de garder & acheter le matériel ou le renvoyer.

Avec notre accompagnement:

Contactez-nous par téléphone (+33 1 83 62 52 34) ou par email à hello@bouhecousue.com en nous précisant votre projet. Nous pourrions choisir ensemble le matériel adapté à votre besoin et vous le faire essayer.

Retrouvez aussi nos coordonnées postales sur cette page : <https://bouhecousue.com/contact/> si vous souhaitez convenir d'un rendez-vous.

¹ Nécessite l'éligibilité à des critères définis par Cisco Meraki, vérifiez que vous êtes éligible sur le site de Cisco Meraki