Dashboard API Update

Fall 2021

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cisco Meraki

What’s new?

New tools for key use cases

Capacity Planning

Monitoring & Assurance

Reporting

Deployment at Scale

Today's Agenda

1	Organization summaries	4	Network topology
2	Client overviews	5	Power supply statuses
3	Client & WAN usage histories	6	Augmented APIs

New tools for reporting and capacity planning

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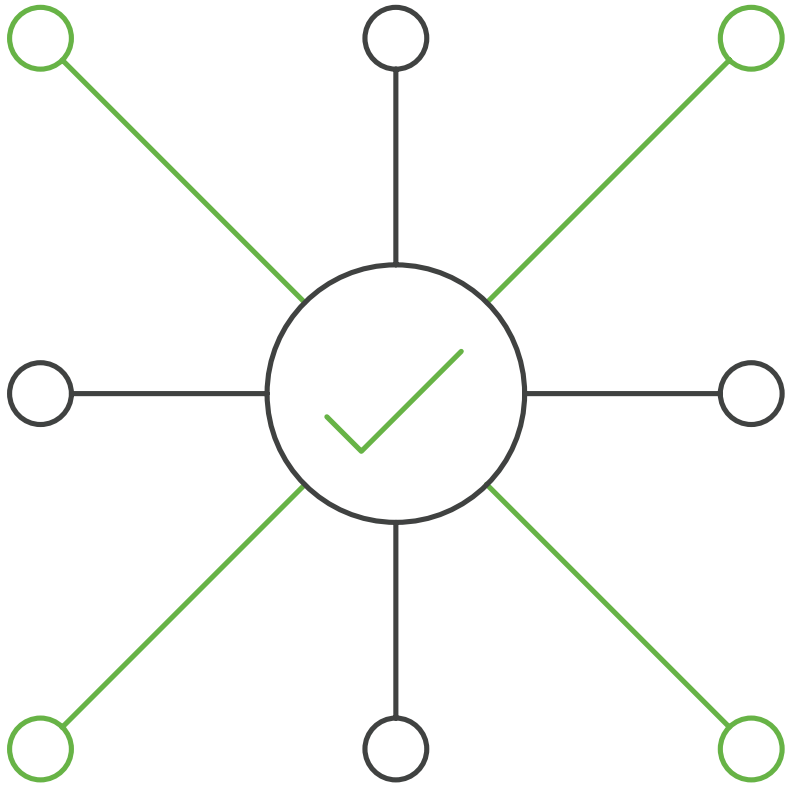
Device status overview

Device status overview

Device statuses aggregated to the organization level

Sometimes, you just want a birds-eye view of how your Meraki devices are doing. The device status overview provides **an organization-wide count of your devices statuses in a single API call**, a big efficiency improvement for large Meraki deployments. This also **simplifies client development**, because you can do less aggregation client-side.

Do you have **any alerting or offline devices**? Make a **single request** and find out.



Device status overview

Optional filters

Filter by product types

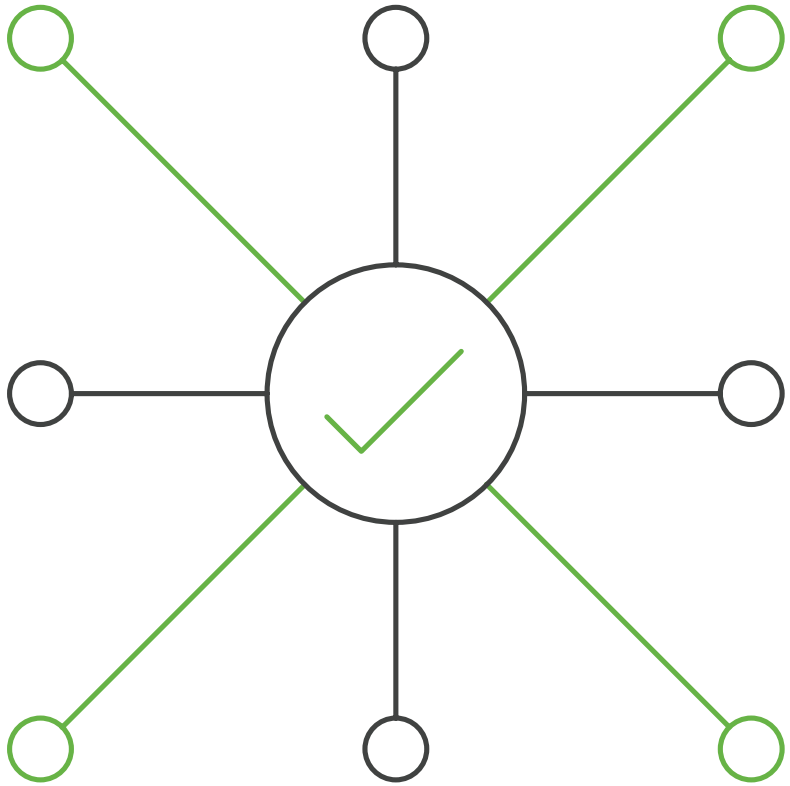
The status overview supports filtering based on one or more product types (e.g. wireless AP or SD-WAN appliance), so you can choose just the product lines that are relevant to your use case, and the API will do the aggregation work for you.

Filter by networks

The status overview also supports filtering by one or more networks, so you can narrow the aggregate to specific networks of interest.

Device status overview

Get started



The device status overview is **available now**, via our new endpoint:

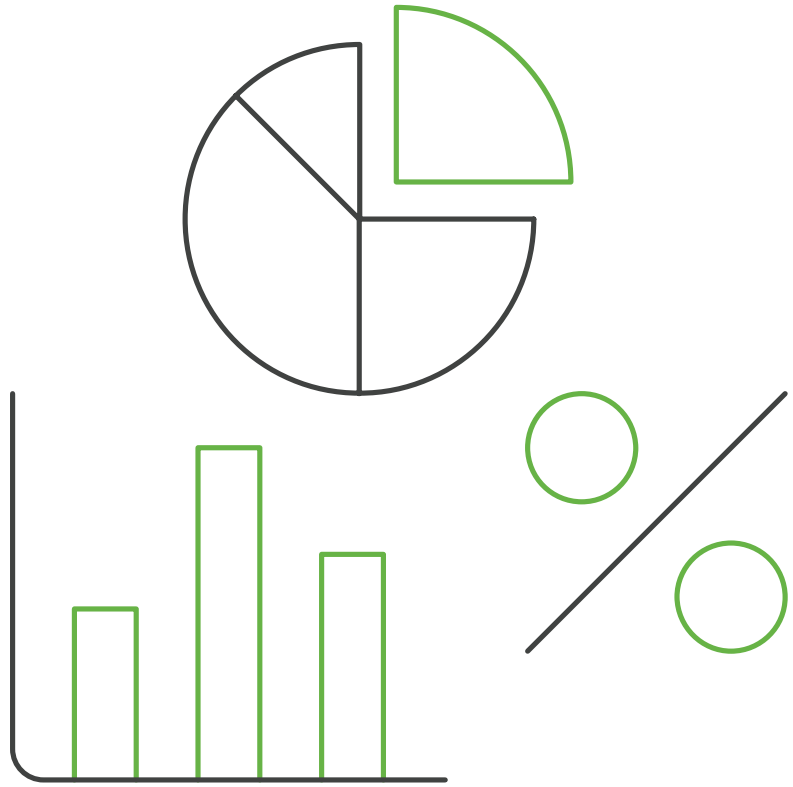
```
GET /organizations/:organizationId/devices/statuses/overview
```

Organization summaries

Organization summaries

Aggregated information for an entire organization

Organization summaries provide the aggregate data in specialized endpoints that greatly **increase the efficiency of gathering information** so that you can make business decisions more accurately, quickly and easily.

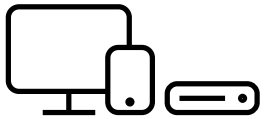


Clients & SSID metrics

Organization summaries

Top clients

Which clients are consuming the most bandwidth in your organization, and **how much are they using?**



Top client manufacturers

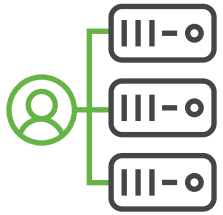
Which client manufacturers represent the majority of your client traffic, **how many of their clients are using your networks**, and how much are they using?

Top SSIDs

Which SSIDs are consuming the most bandwidth, how much are they using, and **how many clients do they serve?**

Meraki device metrics

Organization summaries



Top devices

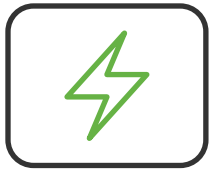
Which Meraki devices are handling the most data, how much data are they handling, what types of devices are they, and **in which network are they deployed?**

Top device models

Which device models are **handling the most data**, how many of them are there, and how much are they using?

MX utilization

Which MX devices are **most heavily utilized**, how much are they utilized, and where are they deployed?

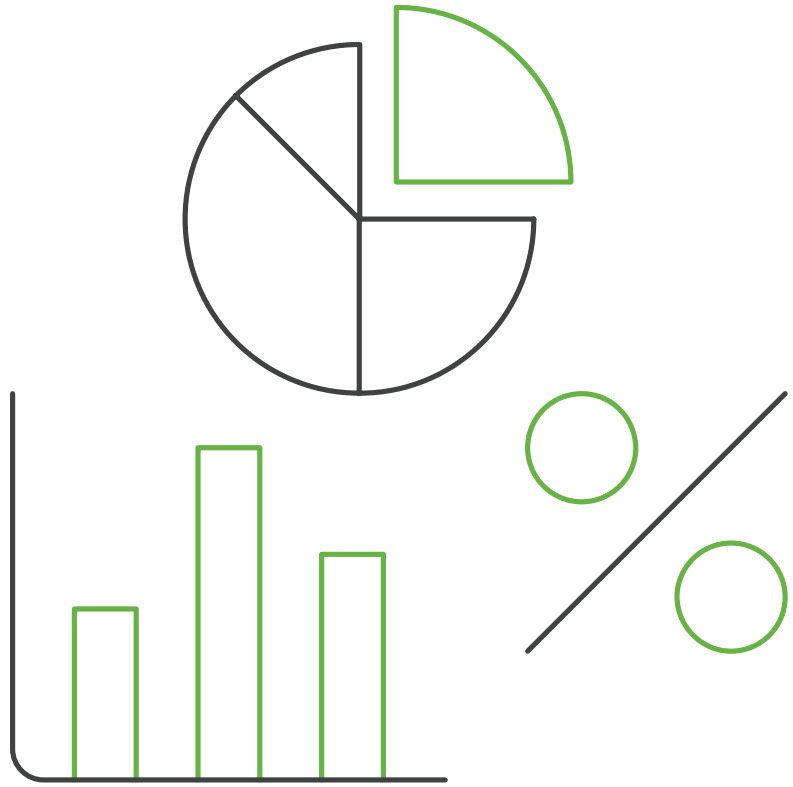


MS energy usage

Which MS devices are using the most energy, **how much are they using**, and where are they deployed?

Organization summaries

Get started



Available now via our new summary endpoints, e.g.

```
GET
/organizations/:organizationId/summary/top/clients/byUsage
GET
/organizations/:organizationId/summary/top/devices/byUsage
GET /organizations/:organizationId/summary/top/ssids/byUsage
```

Client overviews

Client overviews

Client statistics aggregated to the network and organization

New endpoints provide aggregated client stats across networks and organizations, serving many client reporting use cases with singular API calls.

Client overviews

Client statistics aggregated to the network and organization

Organization-wide overview

Specify a timespan and get usage and total client count stats across your organization.

Network-specific overview

Drill down to the network level for network-specific client counts and usage stats.

Client overviews

Client statistics aggregated to the network and organization

Available now via our new overview endpoints:

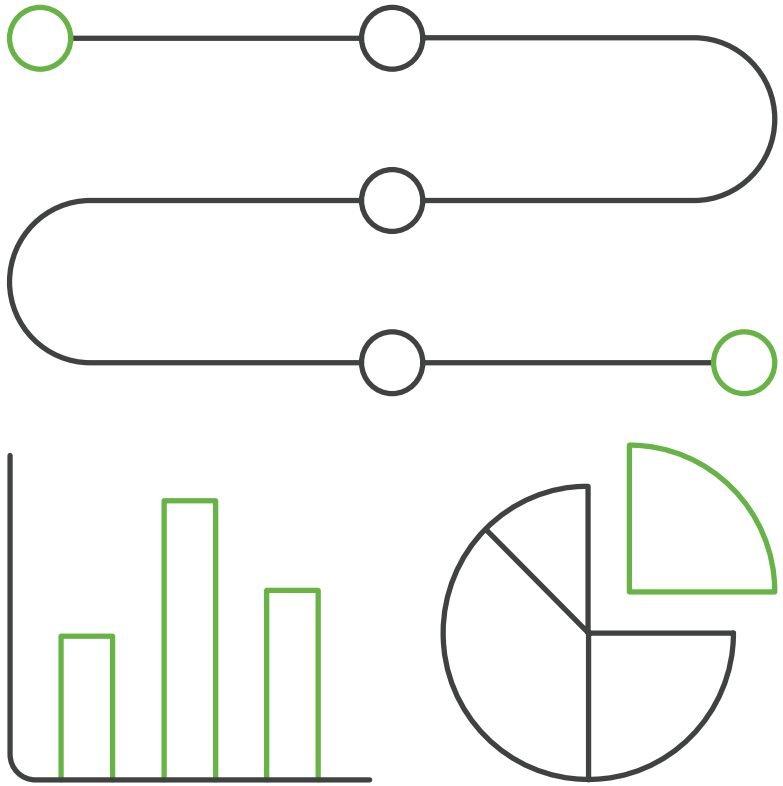
```
GET /organizations/:organizationId/clients/overview
GET /networks/:networkId/clients/overview
```

Usage histories

Usage histories

Bandwidth usage information for clients & WAN uplinks

Monitor and report on bandwidth consumption by clients and across WAN uplinks for capacity planning and trend analysis more efficiently than ever before.



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Client bandwidth usage histories

Aggregated to the organization and network levels

Organization-wide history

Specify the desired timespan and get the overall client bandwidth usage history for all clients in your organization, enabling you to analyze trends over time.

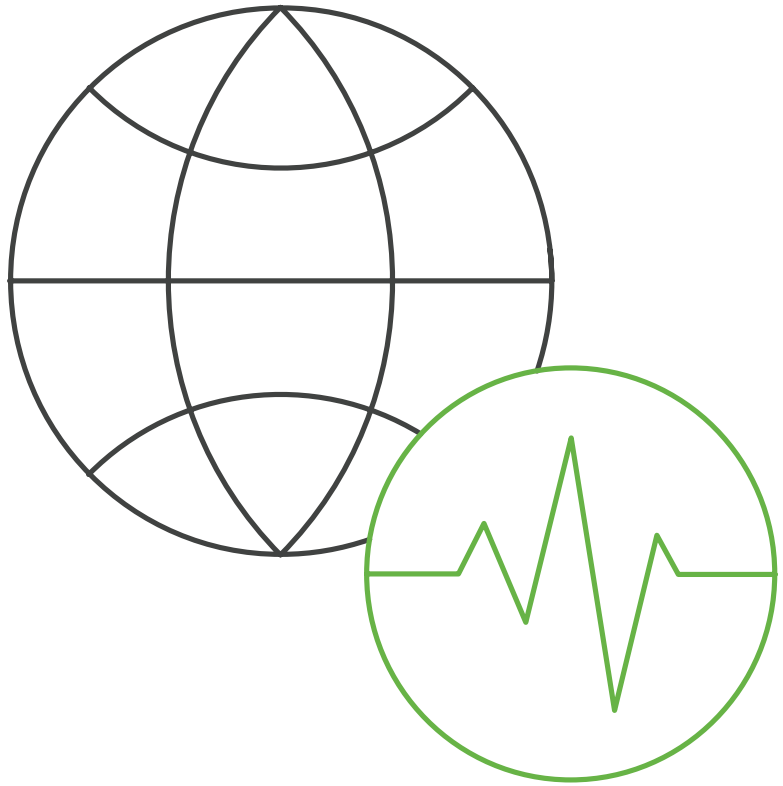
Network-specific history

Need more granularity? Dive into usage information on a per-network level for localized analysis.

WAN usage history

Bandwidth usage across all MX uplinks in a network

Measure uplink bandwidth usage across your MX uplinks, enabling you to analyze overall link utilization and identify suboptimally provisioned WAN circuits and ensure uplink performance.



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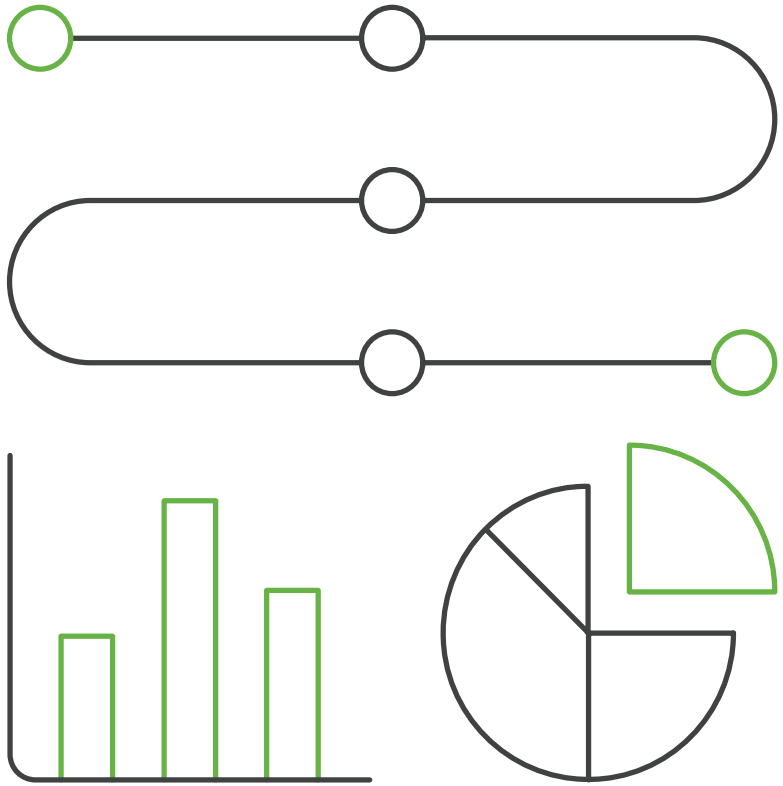
Usage histories

Bandwidth usage information for clients & WAN uplinks



Available now via our new usage history endpoints:

```
GET /networks/:networkId/clients/bandwidthUsageHistory
GET
/organizations/:organizationId/clients/bandwidthUsageHistory
GET /networks/:networkId/appliance/uplinks/usageHistory
```

New tools for monitoring and assurance

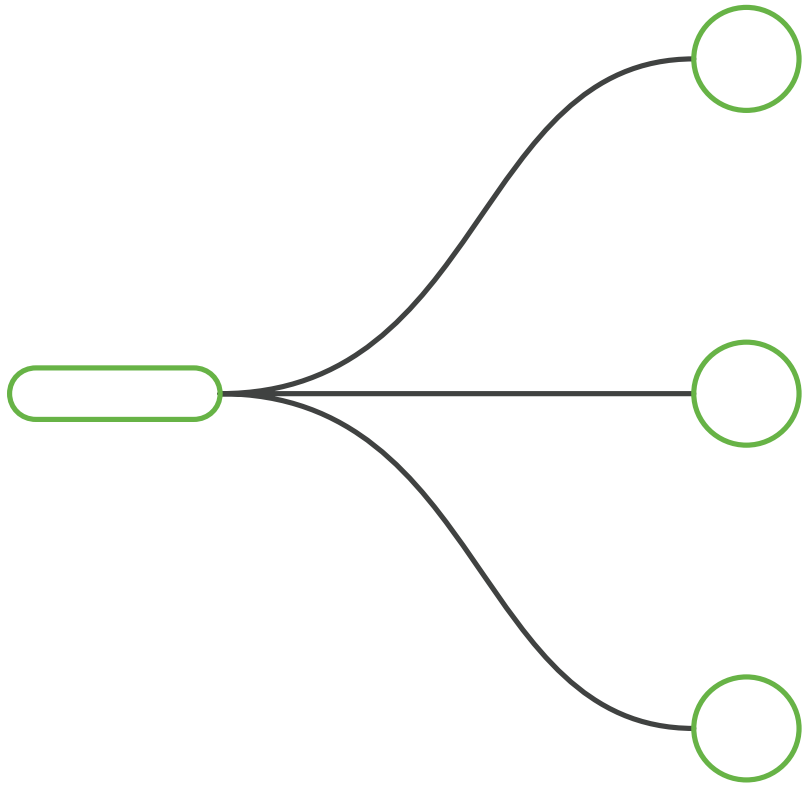
Network topology

Network topology

Link-layer topology for Meraki devices and neighbors

Understand and analyze how your devices are connected on each of your networks leveraging Meraki dashboard intelligence and standards-based discovery protocols with a singular API call offering nodes, links and detailed CDP/LLDP information for a network.

You can poll this endpoint over time to proactively identify and remediate unexpected changes in your topologies.



Network topology

Organized by nodes and links

Topology nodes

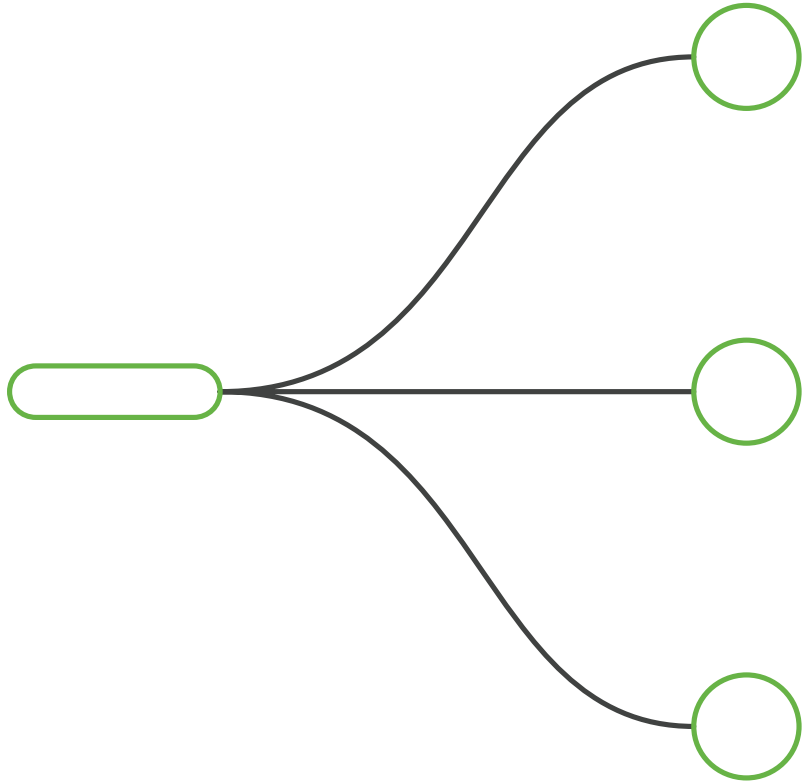
Identifying information and discovery details for individual devices in a network topology, such as Meraki devices or non-Meraki devices discovered via CDP & LLDP.

Topology links

Identifying information for link-layer connections between nodes in a network, with corresponding link-specific CDP & LLDP information.

Network topology

Link-layer topology for Meraki devices and neighbors



Available now via our new link-layer topology endpoint:

```
GET /networks/:networkId/topology/linkLayer
```

Client search by MAC

Client search by MAC

Find clients across an entire organization using only the MAC address

When you need to track down a single client by its MAC address, you can now find any networks where it connected using a single API call that searches across your entire organization, greatly simplifying client troubleshooting and malicious client remediation.

Available now via our new client search endpoint:

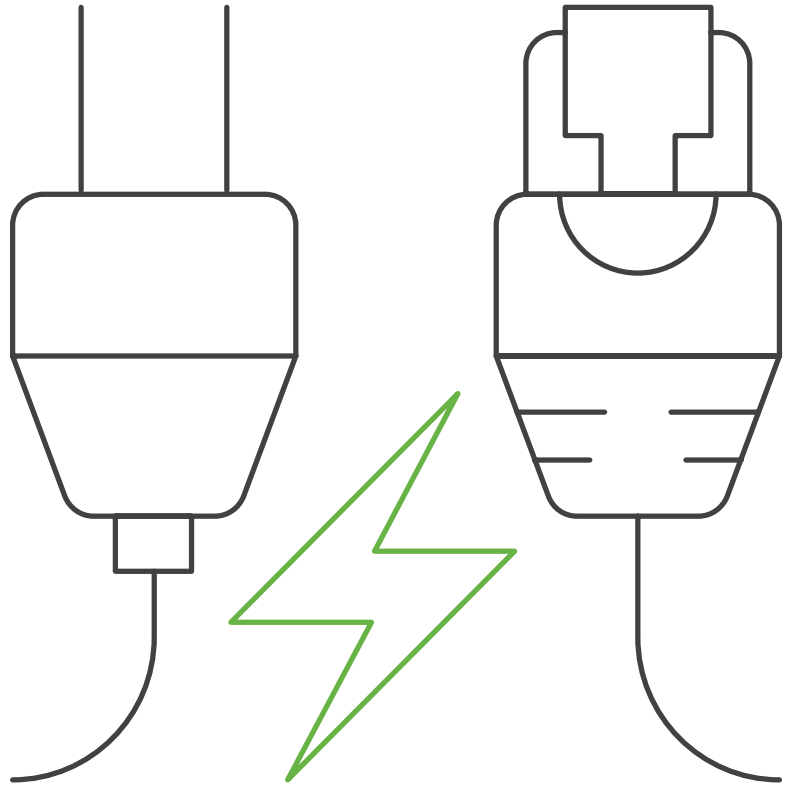
```
GET /organizations/:organizationId/clients/search
```

Power supply statuses

Power supply statuses

For your Meraki devices with redundant power supplies

Component status information enables you to monitor power supplies across your organization, and identify under-provisioned or non-redundant power configurations.



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Power supply statuses

For your Meraki devices with redundant power supplies

Status information

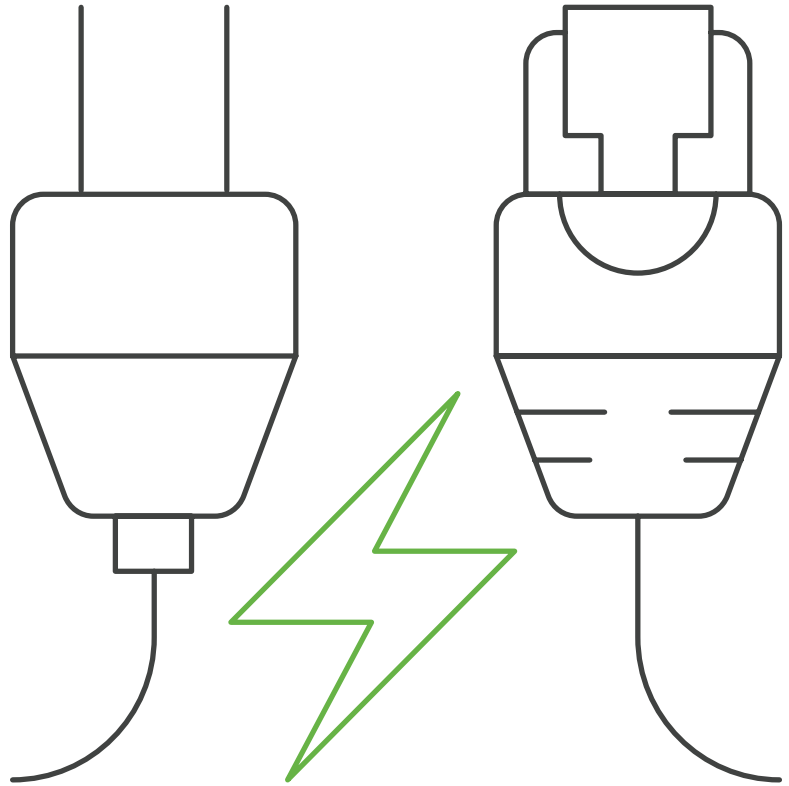
Providing the operational status of your power supplies.

Installation information

Providing slot population, serial numbers, model numbers, and capabilities of your power supplies.

Power supply statuses

For your Meraki devices with redundant power supplies



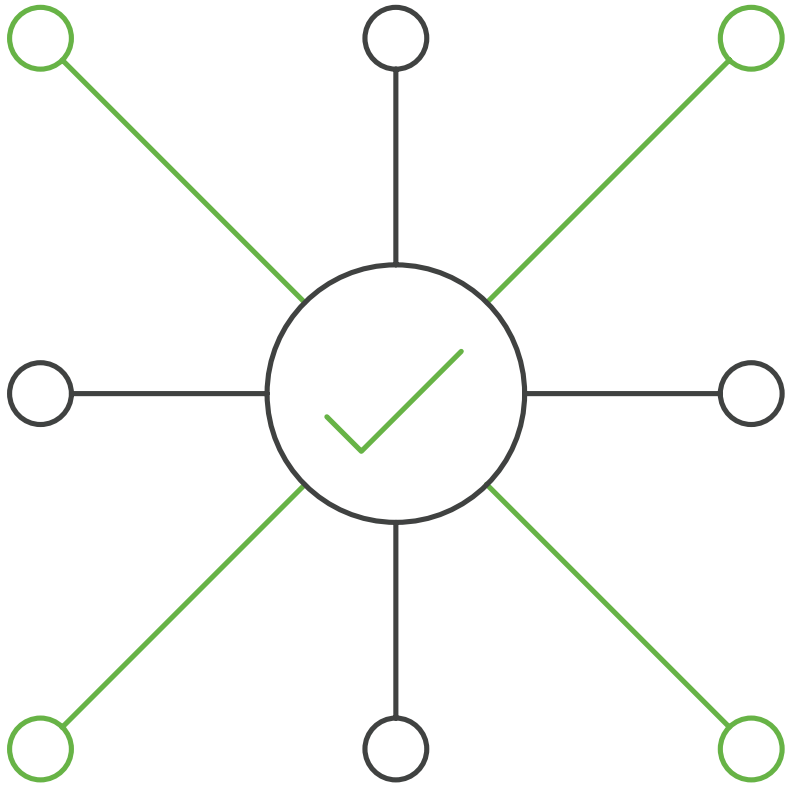
Available now, via our existing org-wide devices statuses endpoint:

```
GET /organizations/:organizationId/devices/statuses
```

Ping and ping device

Ping & ping device

Meraki LiveTools via API



The new ping and ping device endpoints enable you to run ping tests on your Meraki devices using the API. By automating ping tests, customers can improve assurance metrics and diagnostic suites.

Ping & ping device

Meraki LiveTools via API

Ping

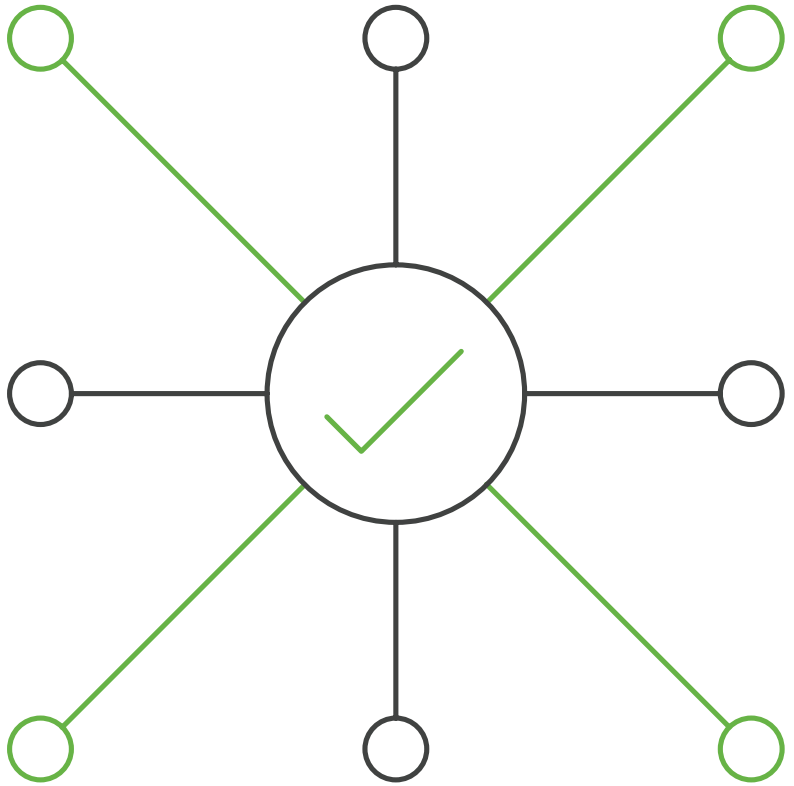
Run a ping from one of your Meraki devices to another IP address and retrieve latency metrics.

Ping device

Run a ping from Meraki dashboard to one of your Meraki devices and retrieve latency metrics.

Ping & ping device

Meraki LiveTools via API



Available now, via our new ping & ping device endpoints:

```
POST /devices/:serial/liveTools/ping
POST /devices/:serial/liveTools/pingDevice
```

Augmented APIs for management at scale

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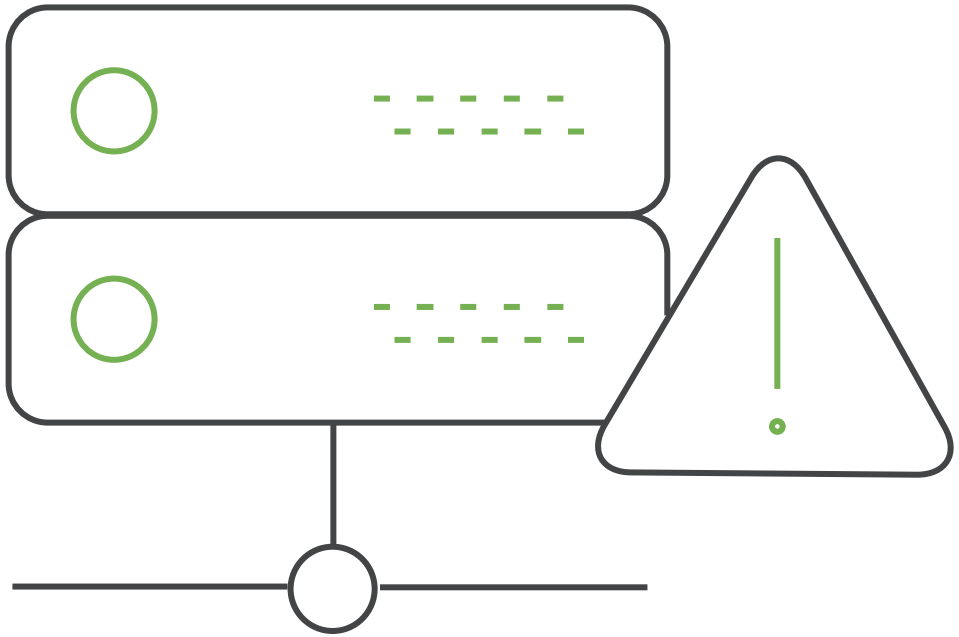
Organization-wide device endpoints

Increased device status intelligence

Quickly distinguish dormant and alerting devices

In addition to “online” and “offline,” you’ll now see “dormant” and “alerting” statuses for your devices where relevant, reducing noise and **enabling you to take action only when necessary**.



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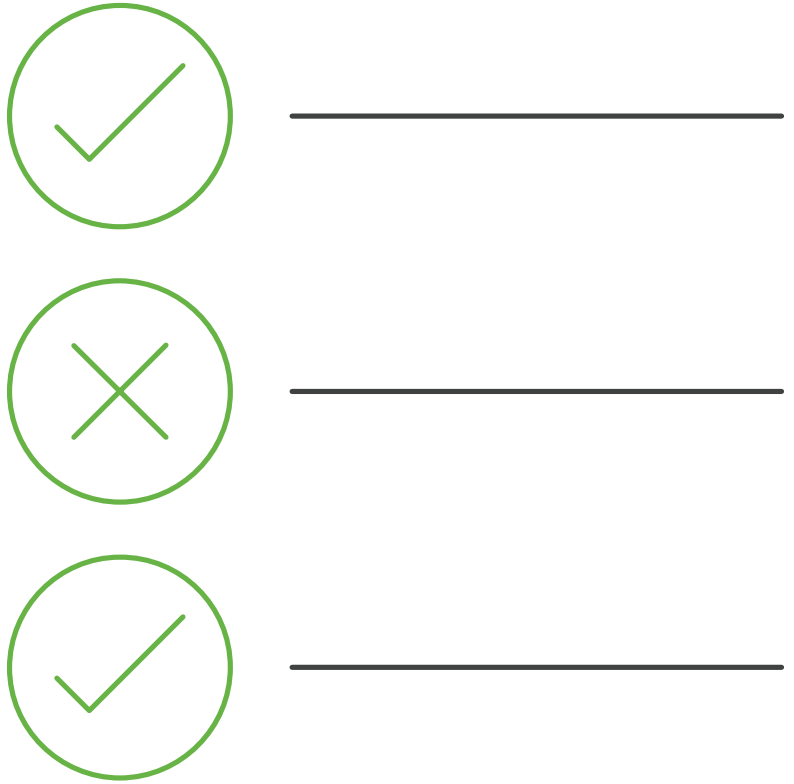
New context parameters

Added context for devices, device statuses, and device inventory endpoints

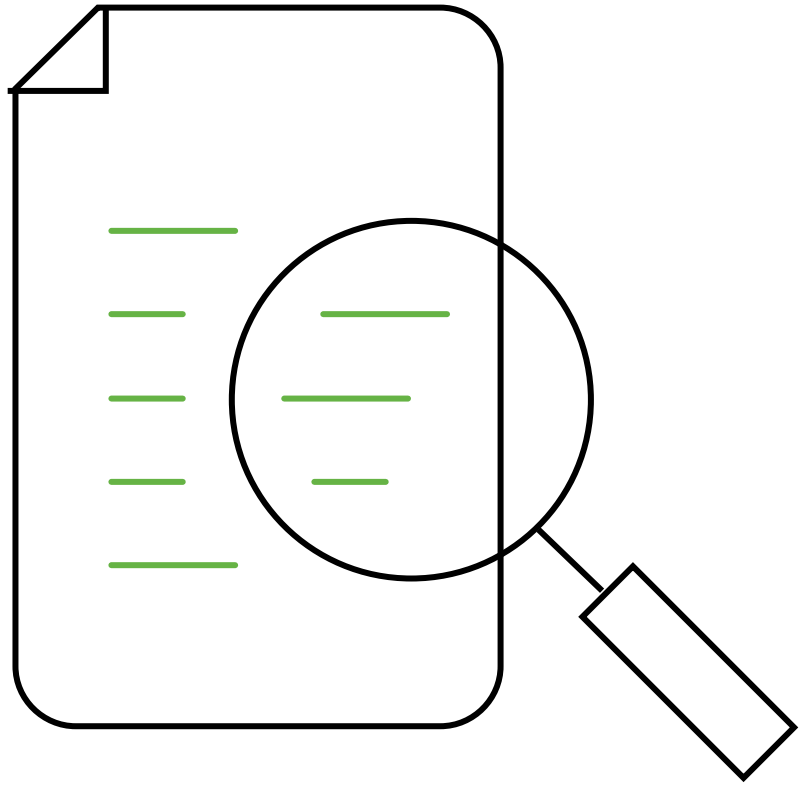
Immediately identify **product types**, **models** and **tags** for all devices returned by our organization-wide devices, devices statuses and inventory devices endpoints without making additional API calls for that metadata.



User-defined data filters

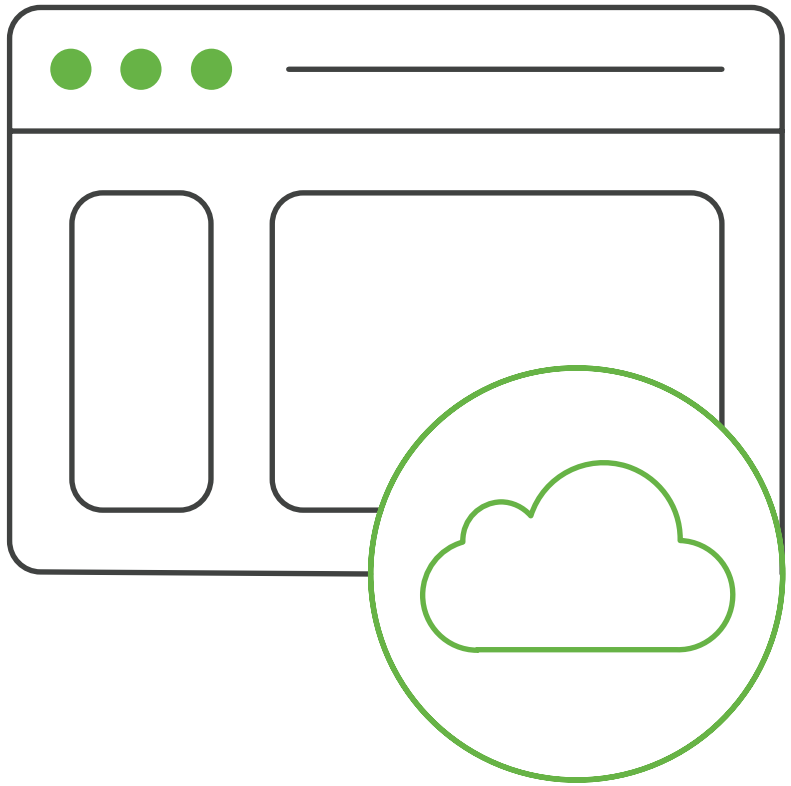
Filter datasets by chosen metadata for efficient analysis

Curious which switches are alerting across your org? Or which APs are currently offline? Cut through the noise and return only the data that you need by specifying criteria for your GET query. **Filter based on networks, tags, models, serials, statuses, and more**, enabling you to more efficiently consume the API by an order of magnitude. Combine filters for complex data filtering based on your needs.



Augmented devices endpoints

Augments for devices, device statuses, and device inventory endpoints



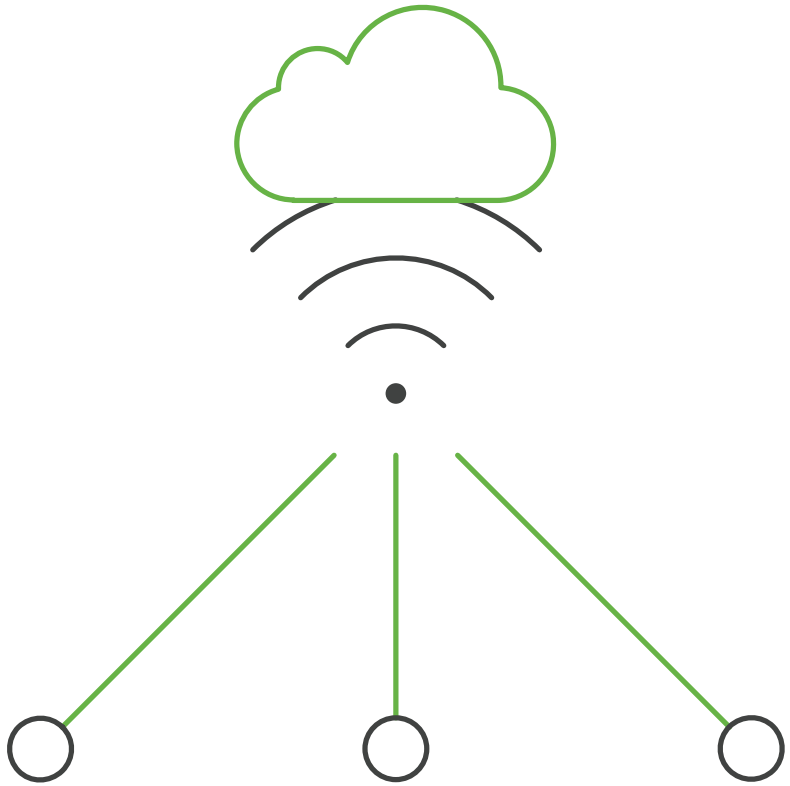
These features are all **available now**, via our existing organization devices endpoints:

```
GET /organization/:organizationId/devices
GET /organization/:organizationId/devices/statuses
GET /organization/:organizationId/inventoryDevices
```

RF Profile endpoints

RF Profile endpoints

Per-SSID settings



These new settings enable you to configure granular, per-SSID parameters for **band selection, band steering, and minimum bit rates** more quickly and scalably than ever before.

Available now, via our existing RF profiles endpoints.

```
GET /networks/:networkId/wireless/rfProfiles
```

Two more things...

Toggle API features

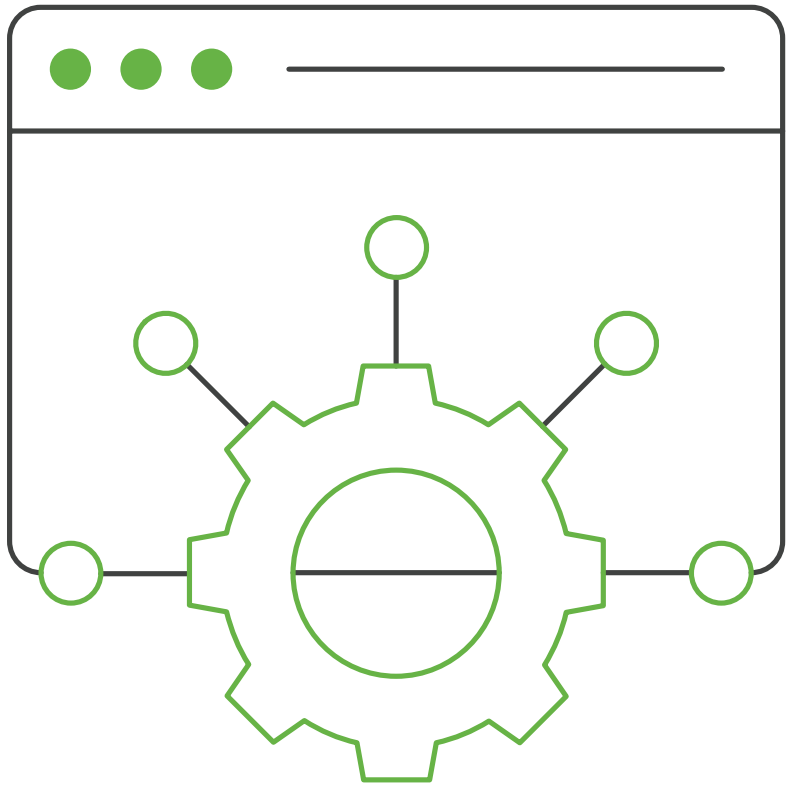
Per organization via API

If you're ready to start using the API on an organization that previously had API disabled, you can now activate the API using the API! Previously, activating the API was only possible via dashboard's web interface.

Creating an organization via API enables API features for that organization by default, as always.

Available now via our existing organizations endpoints, e.g.

```
GET /organizations
```



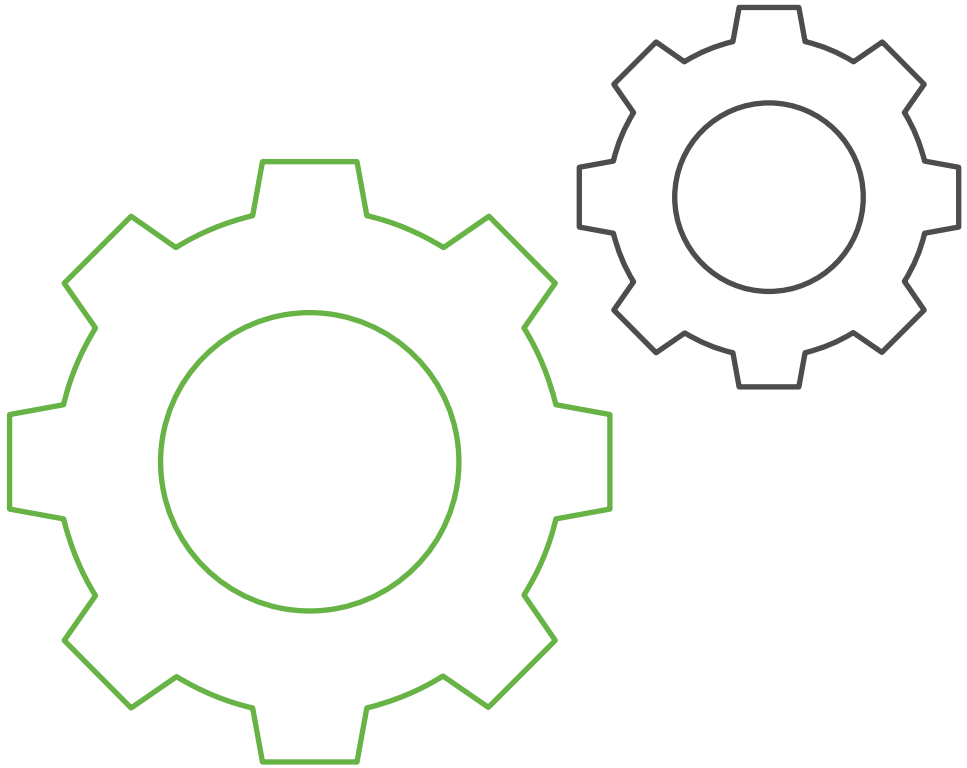
More powerful action batches

IDs for resources created via action batches

Action batches are an incredible tool for accelerating mass deployments. Now when you create resources (like networks, QoS rules, admins, and any others), the action batch will return the IDs for any resources that were successfully created.

Available now via our existing action batch endpoints, e.g.

```
POST /organizations/:organizationId/actionBatches
```



Recap

Recap

SUMMARIES

- Top clients, devices, SSIDs, etc.
- Top appliances by utilization
- Top switches by energy usage

OVERVIEWS

- Device status aggregates
- Org-wide client overviews
- Network-specific client overviews

HISTORIES

- Org-wide aggregate client usage history
- Network-wide aggregate client usage history
- WAN/uplink usage history

Recap

VISIBILITY

- Improved status intelligence
- Power supply statuses
- API features toggle

CONTEXT

- Additional params for org-wide devices endpoints
- Client-search by MAC
- Action batch-created resource IDs

FILTERS

- Filter many endpoints by metadata like product type, status, model, network, etc.

Meraki's APIs make it easier than ever to run your business.

New **summaries and overviews** for enterprises operating at massive scale

Faster than ever tools for monitoring and assurance regardless of deployment size

Quality of life features that **simplify API consumption and client development**

API documentation

https://developer.cisco.com/meraki/api-v1/

Thank you!

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