auvik

Network Vendor Diversity **2020**

In September 2020, Auvik Networks looked at over 375,000 managed network devices deployed across nearly 30,000 networks under the care and management of more than 2,000 IT teams and IT managed service providers (MSPs). The networks were located around the world, with a heavy concentration in North America.

The networks ranged in size from small to large. We also looked at the composition of networks managed by MSPs and broke down our data by size of MSP. We've defined small, medium, and large as follows:

Networks	MSPs
Small: Fewer than 50 devices and workstations	**Small:** Fewer than 10 networks under active management
Medium: 50 to 200 devices and workstations	**Medium:** 10 to 50 networks under active management
Large: More than 200 devices and workstations	**Large:** More than 50 networks under active management

The data focuses on four main types of managed network devices—access points, switches, routers, and firewalls—and their representation across managed networks. Unmanaged devices are not included in the data.

The data in this report relies on the accuracy of underlying SNMP, CLI, and API implementations on each device. While we can clean and build out the data by drawing on multiple sources and inferences, some information simply isn't available.

Contents

Executive Summary

In the 2018 Managing Network Diversity Report, Auvik discovered high diversity in the network devices IT teams and managed service providers (MSPs) were managing. In 2019, the data showed complexity continuing to rise as all categories became increasingly fragmented.

In this 2020 edition, we look at the same four categories of managed network devices—access points, switches, routers, and firewalls—deployed across managed networks, and we compare the data to both 2018 and 2019.

The conclusion: The network device market is becoming more crowded and fragmented as time goes on, but networks themselves aren't becoming more complex.

The number of network device vendors represented in the data grew by 26, with 14 new switch vendors, 13 new router vendors, and 2 new firewall vendors being accounted for. A minimum of 52 vendors compete in each device category, with one category including a whopping 138 vendors.

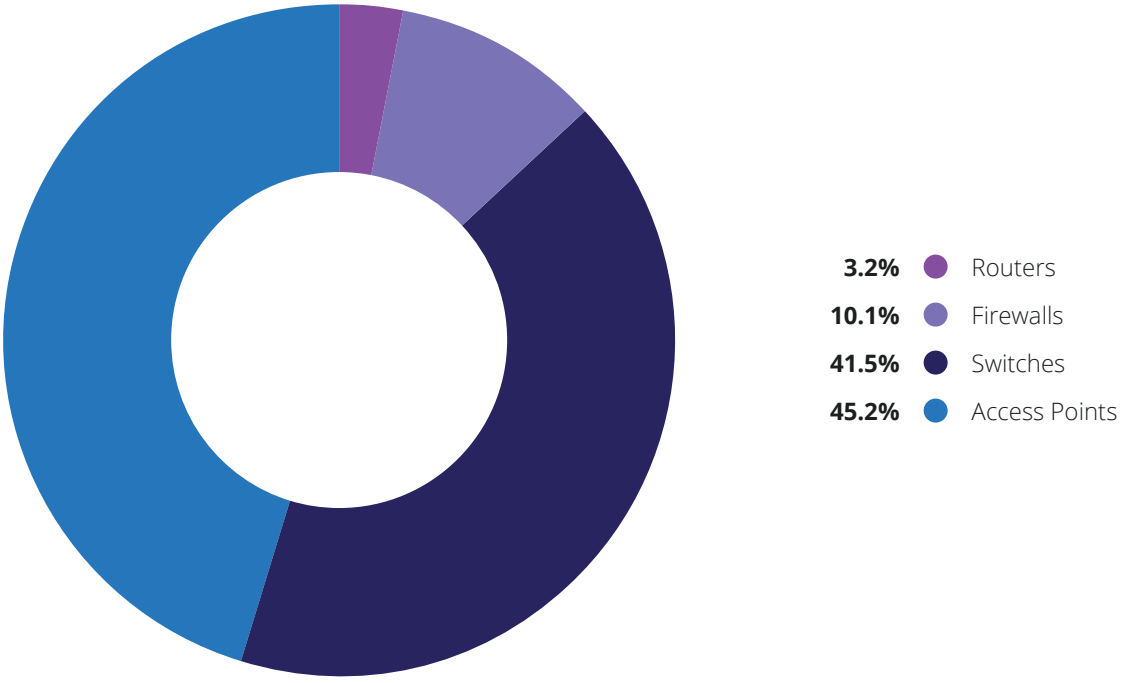
Cisco still maintains its reign as the most commonly deployed vendor on today's managed networks, but its share continues to decline as vendors like Ubiquiti chip away at its lead. The top 10 most commonly deployed vendors claim 81.1% of all networks among them, leaving 358 smaller vendors to share 18.9%.

While the number of network device vendors continues to climb, it has little to no effect on the complexity of managed networks. Nearly two-thirds of all MSPs are managing more than five network device vendors, but nearly 90% of networks of all sizes have only one to three device vendors deployed on them. The number of network device vendors deployed grows alongside the size of an MSP and a network, but there has been relatively no change in this data when compared with last year's report.

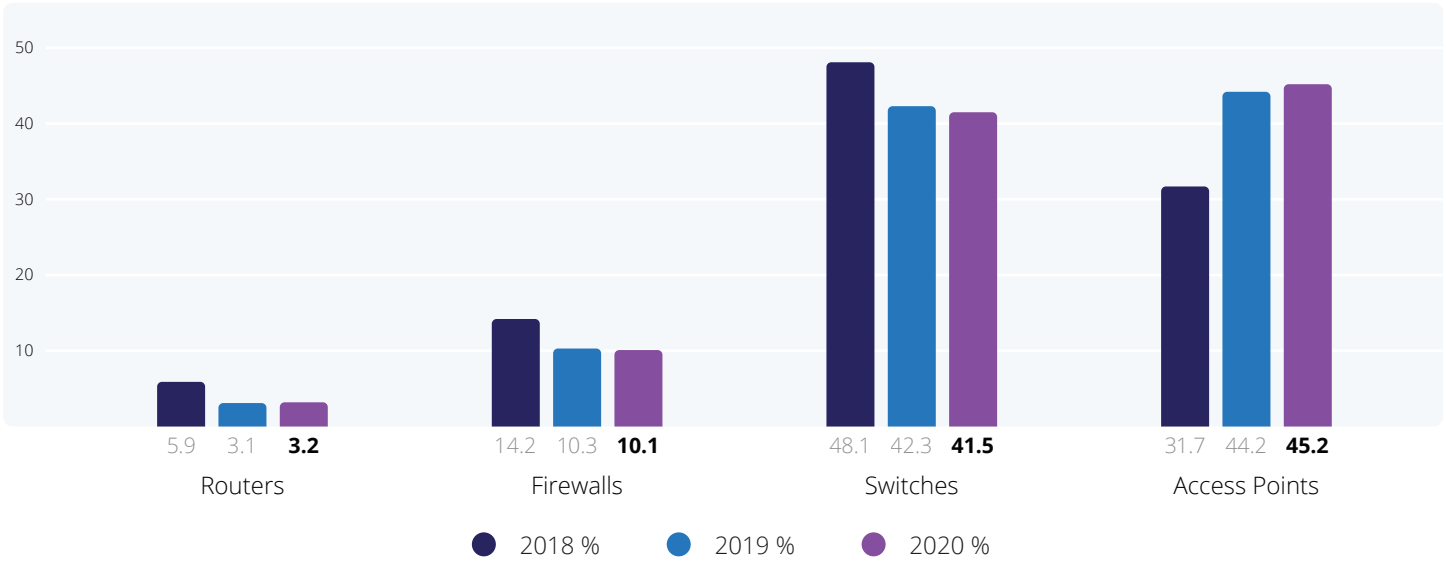
Most Common Device Types

Network Makeup by Device Type

Network Makeup by Device Type **2020**



Network Makeup by Device Type **Year Over Year**



The distribution of routers, firewalls, and switches across managed networks has more or less stayed the same since 2019, with slight gains for routers and access points, and slight losses for firewalls and switches.

A 1.0% growth in access points accounts for the most significant change in network makeup, and it's a good thing. An increase in access points highlights the industry's continued focus on mobility and creating a world without wires, where end users can connect to the network no matter where they are.

Top Network Device Vendors

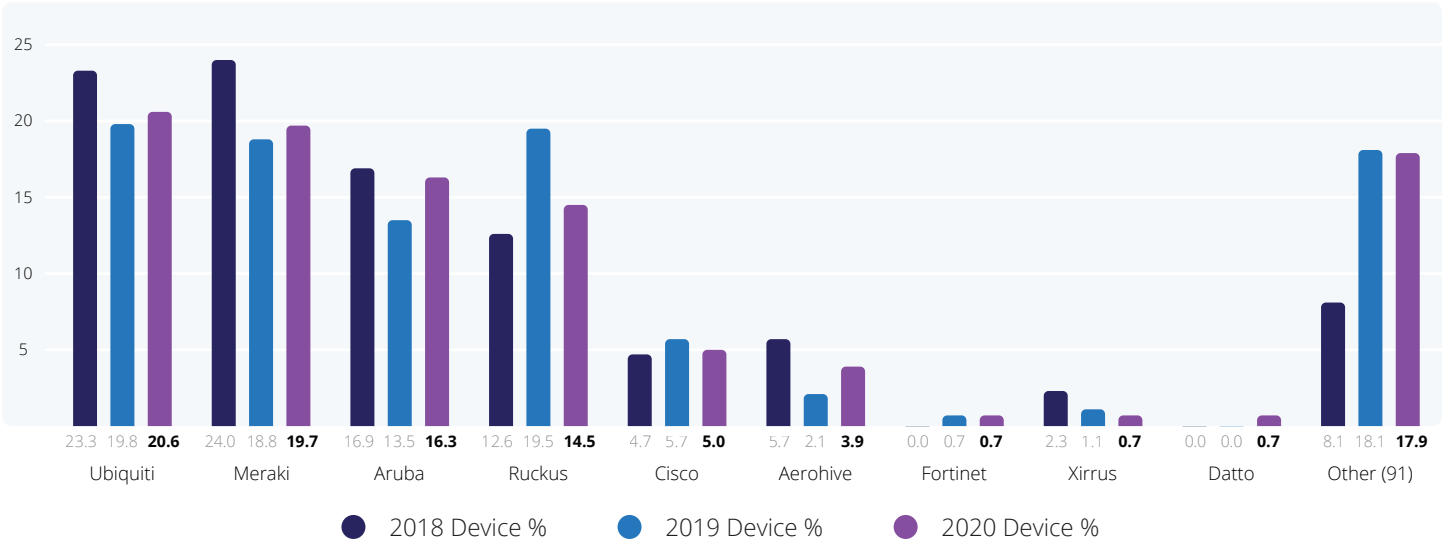
Most Commonly Deployed Access Point Vendors

Total number of different vendors represented **100**

Top 10 Access Point Vendors by Device Count **2020**

20.6%	Ubiquiti
19.7%	Meraki
16.3%	Aruba
14.5%	Ruckus
5.0%	Cisco
3.9%	Aerohive
0.7%	Fortinet
0.7%	Xirrus
0.7%	Datto
17.9%	Other (91)

Top 10 Access Point Vendors by Device Count **Year Over Year**



In 2019, the access point category was the most tightly contested, with only 1.0% separating the year's three most commonly deployed access point vendors of Ubiquiti, Ruckus, and Meraki.

This year, Ruckus drops 5.0% to finish as the fourth most commonly deployed access point vendor, while Meraki and Aruba show steady growth to finish second and third respectively. Despite the shuffle, Ubiquiti still finds itself in a close race for the top spot, with only 0.9% separating it from second place Meraki.

BIGGEST SHIFTS

	Small Networks % 2020	Medium Networks % 2020	Large Networks % 2020	Small MSPs % 2020	Medium MSPs % 2020	Large MSPs % 2020
Ubiquiti	▲ 1.4 23.9	▼ 0.5 30.1	▲ 2.8 21.1	▲ 3.6 36.0	▼ 0.2 31.2	▲ 2.6 17.5
Meraki	▲ 1.8 21.5	▲ 1.0 27.0	▲ 1.2 28.9	▲ 2.0 22.1	▲ 0.7 23.5	▲ 1.0 25.9
Aruba	▲ 5.5 22.1	▲ 0.7 16.7	▲ 1.8 27.4	▲ 2.4 16.8	▼ 1.1 15.3	▲ 6.5 24.3
Ruckus	▼ 13.0 19.3	▲ 1.9 14.1	▼ 3.3 10.5	▼ 4.9 11.9	▲ 1.3 15.4	▼ 13.6 21.4

▲ ▼ indicate % change from 2019

While Ubiquiti edges out Meraki and Aruba as the most commonly deployed access point vendor on small and medium-sized networks, it comes in third on large networks as Meraki enjoys the lion's share with 28.9%.

Ruckus' decline in the top 10 is reflected on small and large networks, where it loses 13.0% and 3.3% of its share on each. Considering Ruckus' 6.9% growth on all networks between 2018 and 2019, as well as the 5.0% drop between 2019 and 2020, the rise and fall may be attributed to a measurement bias—one or two large Ruckus deployments in 2019 may have temporarily skewed the results.

AUVIK INSIGHTS

On networks of all sizes, we expect to continue to see a battle royale between Ubiquiti, Meraki, and Aruba for the top spot.

Ubiquiti has long been focused on delivering enterprise-level features at an affordable price point, and it was considered a favorite among those managing small and medium-sized networks. But Ubiquiti is clearly no longer typecast as a low-cost solution for small to mid-sized businesses, as it continues to gain traction on medium and large networks.

Meraki is considered an expensive product, but buyers are willing to pay for a solution that just *works* without a huge time investment. Thanks to its cloud management system and its ease of use, Meraki fits the bill for many, even though it's more expensive than some alternative vendors.

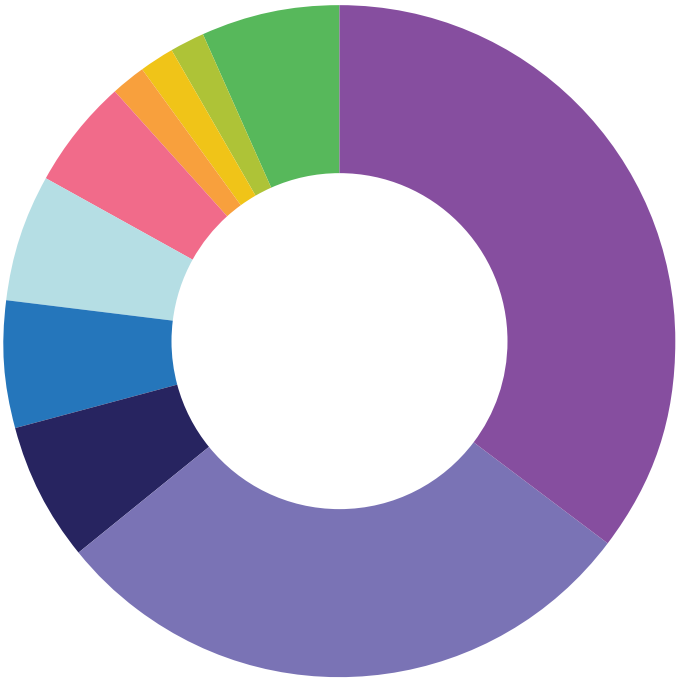
Aruba is considered the best-in-class Wi-Fi radio experience and the gear itself is incredibly high quality, though they haven't focused as much on the software or ease of use, and the access points themselves are quite pricey. But with tons of businesses shifting to a "work from anywhere" model in a post-COVID world, many may choose to replace their numerous access points for a few higher quality access points for employees who drop into physical offices.

Top Network Device Vendors

Most Commonly Deployed Switch Vendors

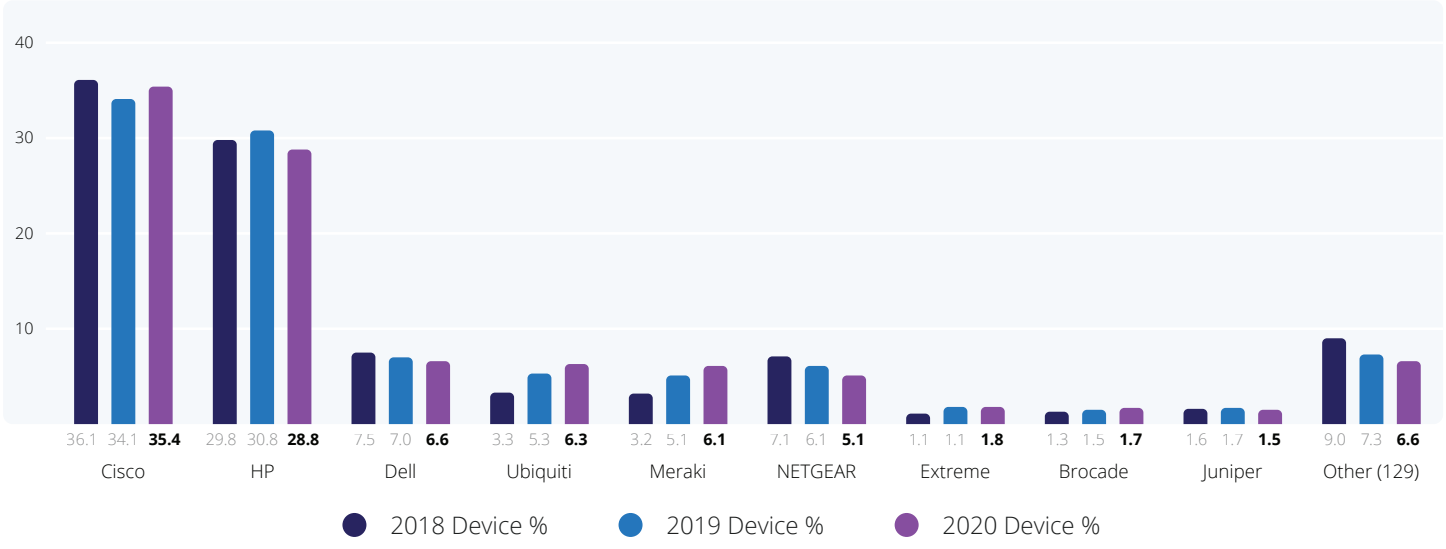
Total number of vendors represented **138**

Top 10 Switch Vendors by Device Count **2020**



35.4%	Cisco
28.8%	HP
6.6%	Dell
6.3%	Ubiquiti
6.1%	Meraki
5.1%	NETGEAR
1.8%	Extreme
1.7%	Brocade
1.5%	Juniper
6.6%	Other (129)

Top 10 Switch Vendors by Device Count **Year Over Year**



While Cisco, Ubiquiti, and Meraki all enjoyed slight growth in 2020, the top 10 most commonly deployed switch vendors stayed relatively the same: Cisco continues to hold the top spot, Cisco and HP command two-thirds of the category, and the top 9 vendors still make up more than 93% of the total category share.

The largest changes for switches are a 1.0% loss for NETGEAR, and 1.0% gains for Ubiquiti and Meraki, which allowed both vendors to leapfrog NETGEAR to take over the fourth and fifth spots respectively.

BIGGEST SHIFTS

	Small Networks % 2020	Medium Networks % 2020	Large Networks % 2020	Small MSPs % 2020	Medium MSPs % 2020	Large MSPs % 2020
Cisco	▲ 2.0 34.7	▲ 0.4 32.0	▲ 2.3 39.0	▲ 1.7 34.9	▼ 1.7 32.1	▲ 4.8 36.8
HP	▼ 1.9 27.7	▼ 2.0 31.4	▼ 4.2 30.4	▼ 1.3 28.4	▼ 2.1 29.4	▼ 4.4 30.5

▲ ▼ indicate % change from 2019

Cisco's lead in the top 10 is reflected in small, medium, and large networks, as it maintains over 30% of the share of each network size subcategory and continues to make gains.

HP, on the other hand, is consistently down across each subcategory and loses its title as the most popular switch on medium-sized networks. The downward trend for HP also refutes our 2019 prediction, where we suggested HP's trajectory could see it surpass Cisco as the most commonly deployed switch across all networks.

AUVIK INSIGHTS

Similar to the trends identified in the access point category, Meraki and Ubiquiti's gains in the switch category can be attributed to the industry shifting from hardware to software. Even though Meraki's switches are more costly than Cisco's traditional switches, many are willing to pay a premium for Meraki's software, integrations, and overall ease of use. We expect Meraki to make gains in the switch category in the coming years as a result.

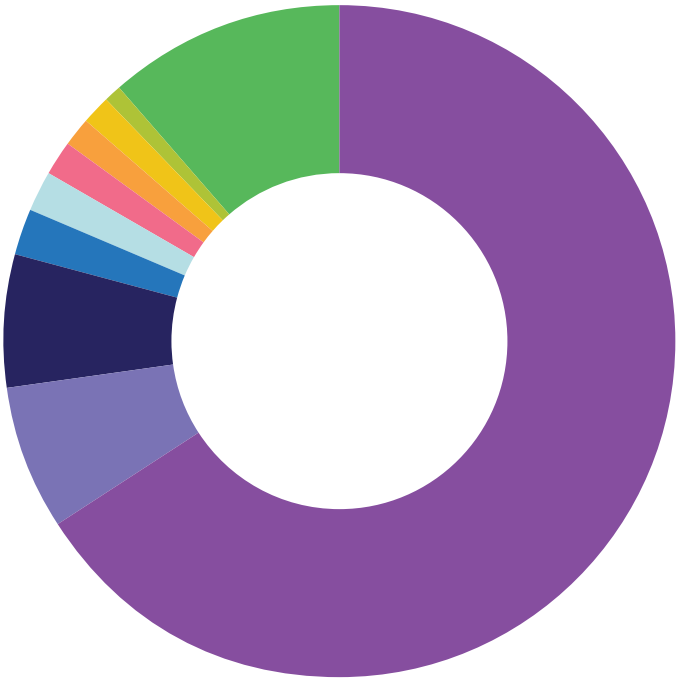
Several of the extra switch vendors accounted for in 2020 are virtual switch vendors, which shows the continued growth of software-defined technologies and a bigger focus on user experience—not hardware specs—when deploying new vendors.

Top Network Device Vendors

Most Commonly Deployed Router Vendors

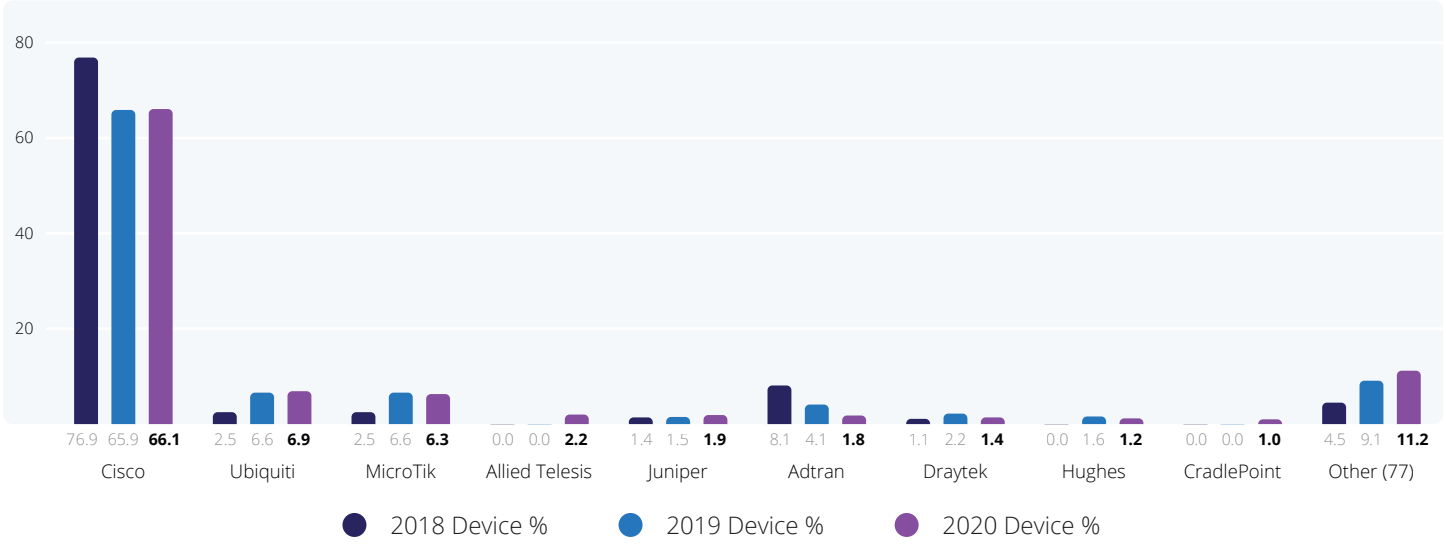
Total number of vendors represented **86**

Top 10 Router Vendors by Device Count **2020**



66.1%	Cisco
6.9%	Ubiquiti
6.3%	MikroTik
2.2%	Allied Telesis
1.9%	Juniper
1.8%	Adtran
1.4%	Draytek
1.2%	Hughes
1.0%	CradlePoint
11.2%	Other (77)

Top 10 Router Vendors by Device Count **Year Over Year**



It's another year of Cisco being the most commonly deployed router vendor as it makes up more than two-thirds of the category share. The Other category, which represents 77 other router vendors, accounts for the second-highest share with 11.2%. The Other category includes SD-WAN vendors, and as the industry continues to adopt this technology in place of traditional routers, expect this vendor grouping to continue to hold the second spot.

BIGGEST SHIFTS

	Small Networks % 2020	Medium Networks % 2020	Large Networks % 2020	Small MSPs % 2020	Medium MSPs % 2020	Large MSPs % 2020
Cisco	▲ 7.4 63.1	▼ 0.4 67.3	▼ 10.8 72.2	▼ 0.6 58.7	▼ 4.2 64.1	▲ 6.0 70.8
Allied Telesis	▲ 0.1 0.1	— 0.0 0.0	▲ 10.9 10.9	▲ 0.2 0.2	— 0.0 0.0	▲ 4.7 4.7

▲ ▼ — indicate % change from 2019

Allied Telesis, an older vendor but a new name in the top 10 thanks to its popularity in Australia and New Zealand, has cost Cisco a 10.8% share on large networks in 2020. But it's not all bad for Cisco—after losing 22.0% of the share on small networks in 2019, Cisco has made up some of the loss this year, adding 7.4% to their dominant share.

AUVIK INSIGHTS

While the number of SD-WAN vendors in the router category is sure to keep growing and Cisco will likely maintain its wide margin as the most commonly deployed router vendor, we likely won't see much change in this category next year.

In small and medium-sized networks, firewalls are increasingly responsible for performing all of the routing functions, so many businesses don't invest in physical routers at all. As router and firewall convergence continues, we'll likely see the firewall category become more competitive as businesses invest in firewalls that can give them routing *and* security functionality while the router category remains relatively unchanged.

Top Network Device Vendors

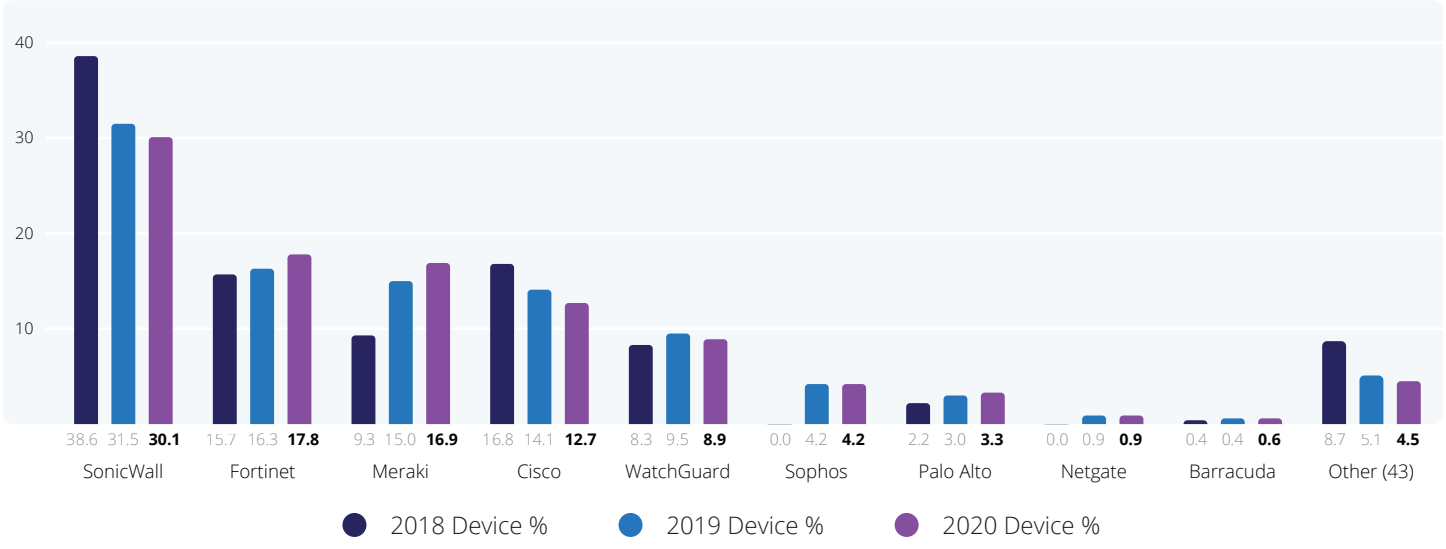
Most Commonly Deployed Firewall Vendors

Total number of vendors represented **52**

Top 10 Firewall Vendors by Device Count **2020**

30.1%	SonicWall
17.8%	Fortinet
16.9%	Meraki
12.7%	Cisco
8.9%	WatchGuard
4.2%	Sophos
3.3%	Palo Alto
0.9%	Netgate
0.6%	Barracuda
4.5%	Other (43)

Top 10 Firewall Vendors by Device Count **Year Over Year**



Firewalls remain the least fragmented network device category for another year, with only two extra vendors being introduced. The category also isn't as fluid as some of the others—none of the top nine vendors have moved up the rankings in the past year, three vendors have not seen any growth in their category share, and the largest change was Meraki's 1.9% gain.

Thanks to a relatively unchanging category, SonicWall remains the top firewall vendor and accounts for nearly one-third of the pie. Of the top 10 firewall models deployed, 40.5% are SonicWall TZ 300, 400, 500, and 600 series firewalls. However, Fortinet and Meraki are continuing to chip away at SonicWall's share, and we'd expect the growth of Fortinet and Meraki to continue into next year. With its year over year growth, Meraki will likely move into second sooner rather than later.

Since 2018, Cisco's share has continued to decline. Last year, this was attributed to more than 50 of Cisco's ASA firewall models having reached end of sale status and at least 20 having reached end of life, with more models reaching end of sale or end of life by 2023. While Cisco has launched its Firepower next-generation firewall, it hasn't yet taken the market by storm, and we'll have to wait and see if adoption in 2021 will stop its downward trend.

BIGGEST SHIFTS

	Small Networks % 2020		Medium Networks % 2020		Large Networks % 2020		Small MSPs % 2020		Medium MSPs % 2020		Large MSPs % 2020	
SonicWall	▼ 1.2	29.3	▼ 1.5	31.7	▼ 1.5	30.2	▲ 0.3	31.9	▼ 2.6	29.6	▼ 0.5	30.1
Fortinet	▲ 1.2	17.7	▲ 0.6	17.0	▲ 5.8	20.7	▲ 1.7	15.2	▲ 0.1	17.4	▲ 2.6	19.0
Meraki	▲ 2.6	17.0	▲ 2.2	17.6	▼ 2.4	14.8	▼ 1.5	12.8	▲ 2.6	16.0	▲ 1.8	19.2
Cisco	▼ 1.0	13.1	▼ 1.2	11.9	▼ 3.9	13.1	▼ 4.9	13.0	▼ 2.0	12.4	▼ 0.9	12.9

▲ ▼ indicate % change from 2019

On large networks, SonicWall, Meraki, and Cisco's losses are Fortinet's gain, as Fortinet is the only one of the top four to gain share in the subcategory. The downward trend continues for SonicWall and Cisco on small and medium-sized networks, while Fortinet and Meraki continue to make gradual gains.

AUVIK INSIGHTS

Fortinet and Meraki's gains reflect the feedback we've heard from IT teams in the industry—they have great cloud management platforms which make them easy to deploy and manage.

Strong cloud management platforms aren't enough to dethrone SonicWall, however. SonicWall has its Global Management System (GMS), which has been ported to the cloud and allows users to deploy and centrally manage SonicWall firewalls.

Towards the bottom of the list, a notable absence is Ubiquiti, which has its fingerprints all over the rest of the report and a comprehensive product line which includes firewalls. But there's a logical explanation for this: Ubiquiti had a late start on its security offering when compared to its peers who started out with security offerings, then branched out to offer switches and access points. As Ubiquiti continues to build out its security offering in the coming years, we expect them to make their way into the firewall top 10.

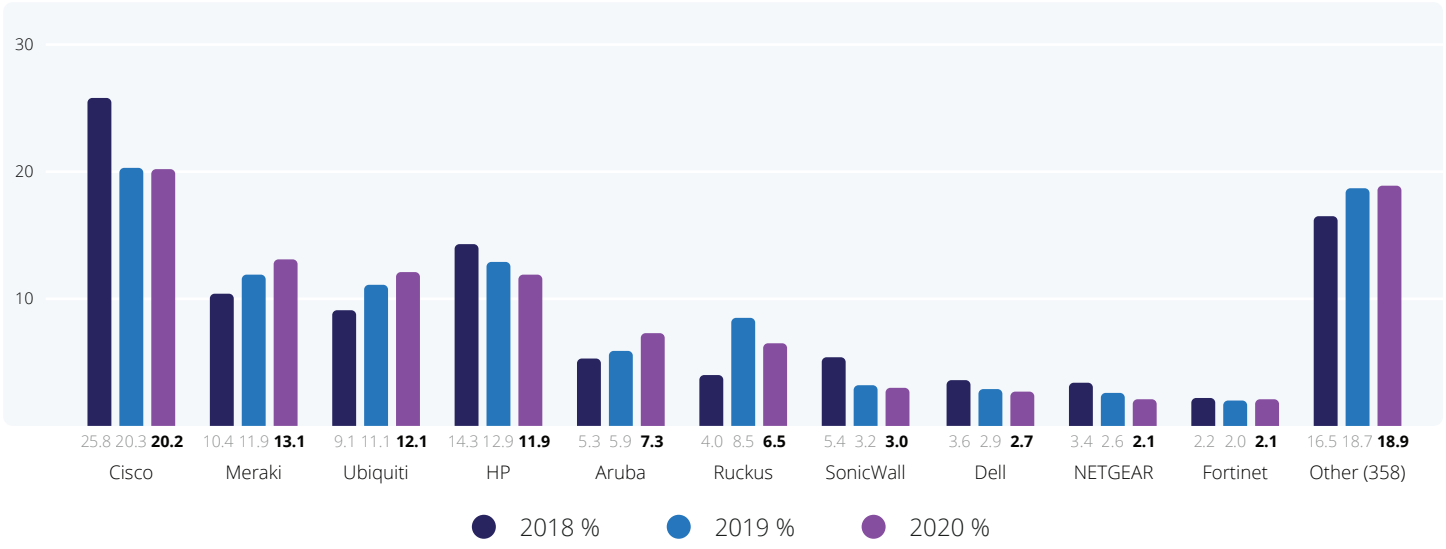
Top Network Device Vendors

Most Commonly Deployed Vendors Across All Network Devices

Most Commonly Deployed Vendors Across All Network Devices **2020**

20.2%	Cisco
13.1%	Meraki
12.1%	Ubiquiti
11.9%	HP
7.3%	Aruba
6.5%	Ruckus
3.0%	SonicWall
2.7%	Dell
2.1%	NETGEAR
2.1%	Fortinet
18.9%	Other (358)

Most Commonly Deployed Vendors Across All Network Devices **Year Over Year**



After spending two years as the second most commonly deployed network vendor across all devices, HP is overtaken by Meraki and Ubiquiti as it drops two spots in the top 10.

The device portfolio of each vendor plays a huge part in the rankings in this category. Cisco is represented across all four device categories, while Meraki and Ubiquiti are represented in the switch, firewall, and access point categories. By contrast, 99% of HP's devices represented in this report are switches. As Meraki and Ubiquiti continue to build out their presence in the access point category specifically, we expect to see the vendors in second and third place pull away with a more significant lead.

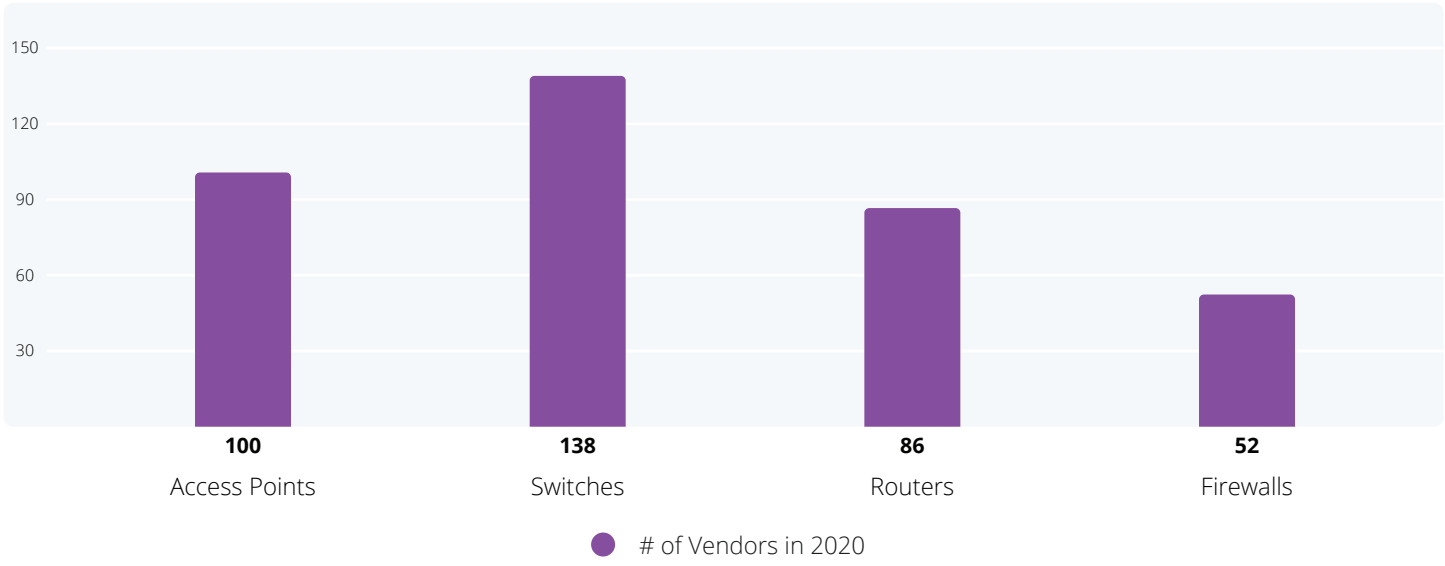
Aruba's strong showing in the access point category has enabled them to leapfrog Ruckus in the top 10 to take possession of fifth spot. Despite Aruba's success, it's still important to remember that Ruckus' rise and fall in the access point category and the top 10 may be attributed to a measurement bias.

When looking at the most commonly deployed vendors across all network devices, it's important to note that Cisco owns Meraki, HP owns Aruba, and Dell owns SonicWall. When combined, Cisco and Meraki make up 33.3% of all devices, HP and Aruba make up 19.2%, and Dell and SonicWall make up 5.7%.

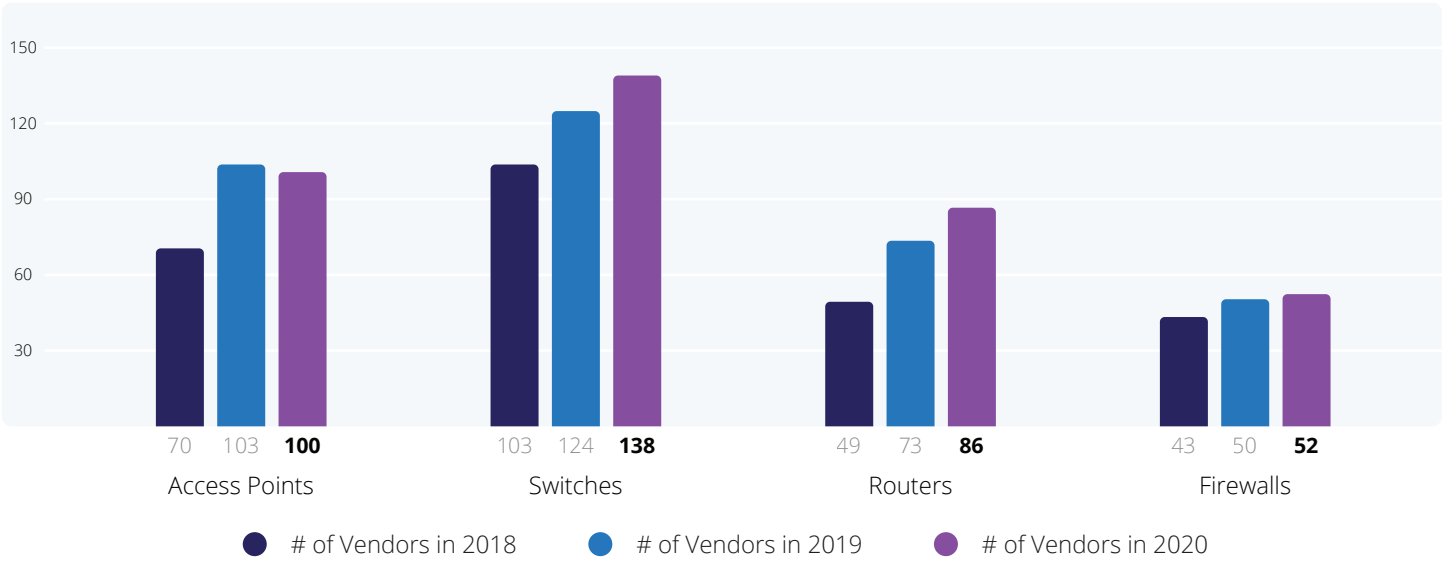
The Network Vendor Market Continues To Grow

Number of Vendors per Network Device Type

Number of Vendors per Network Device Type **2020**



Number of Vendors per Network Device Type **Year Over Year**



The number of network device vendors included in this report grew by 26 this year, with 14 new switch vendors, 13 new router vendors, and 2 new firewall vendors being accounted for.

While the number of router vendors will continue to increase as SD-WAN vendors are included in the count, as noted last year, the network switch market continuing to grow was initially surprising. The switch market is already mature, and last year we mentioned the pace of innovation among device vendors has tapered off—yet, new vendors are making their way into the market.

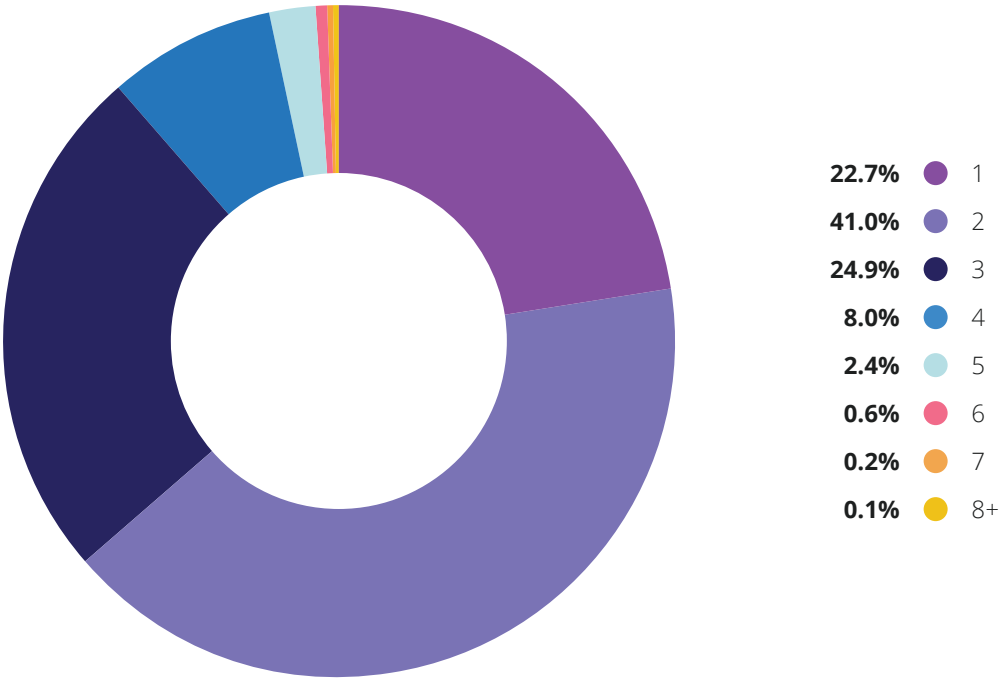
Digging deeper into the Other category and the list of new switch vendors, we can see that many are actually *virtual* switch vendors. With the rise of software, the barrier to entry into mature categories is at an all-time low. Vendors no longer have to build their own devices from the ground up. Most of the software being used is off the shelf while OEM (original equipment manufacturing) and ODM (original design manufacturing) make it really easy to pull the hardware together.

Network Device Vendor Diversity Among Networks and MSPs

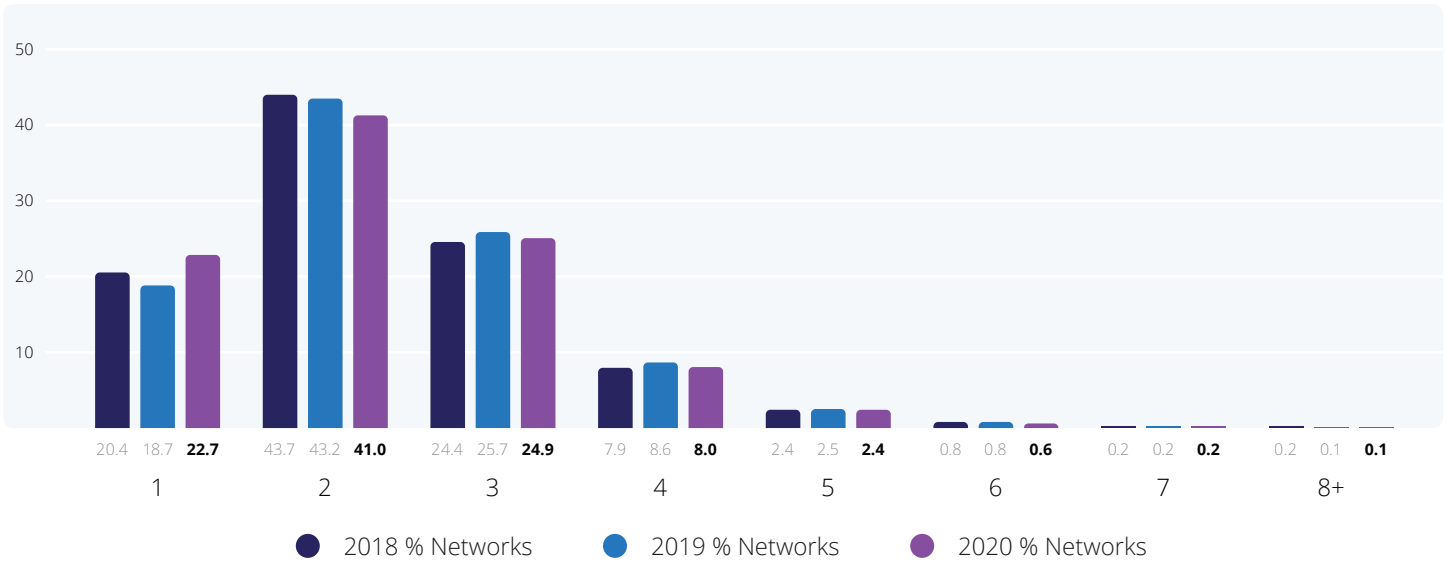
Number of Network Device Vendors per Managed Network

Across All Network Sizes

Number of Network Device Vendors on Networks of All Sizes **2020**



Number of Network Device Vendors on Networks of All Sizes **Year Over Year**



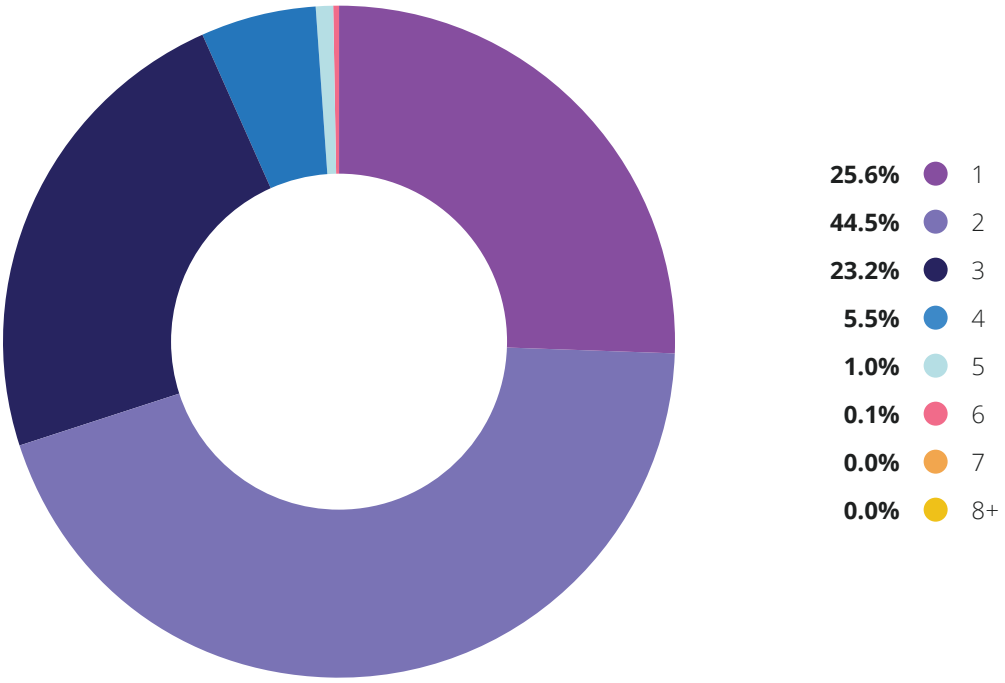
Median of Different Network Device Vendors

- 2 Networks of all sizes
- 2 Small networks
- 3 Medium networks
- 3 Large networks

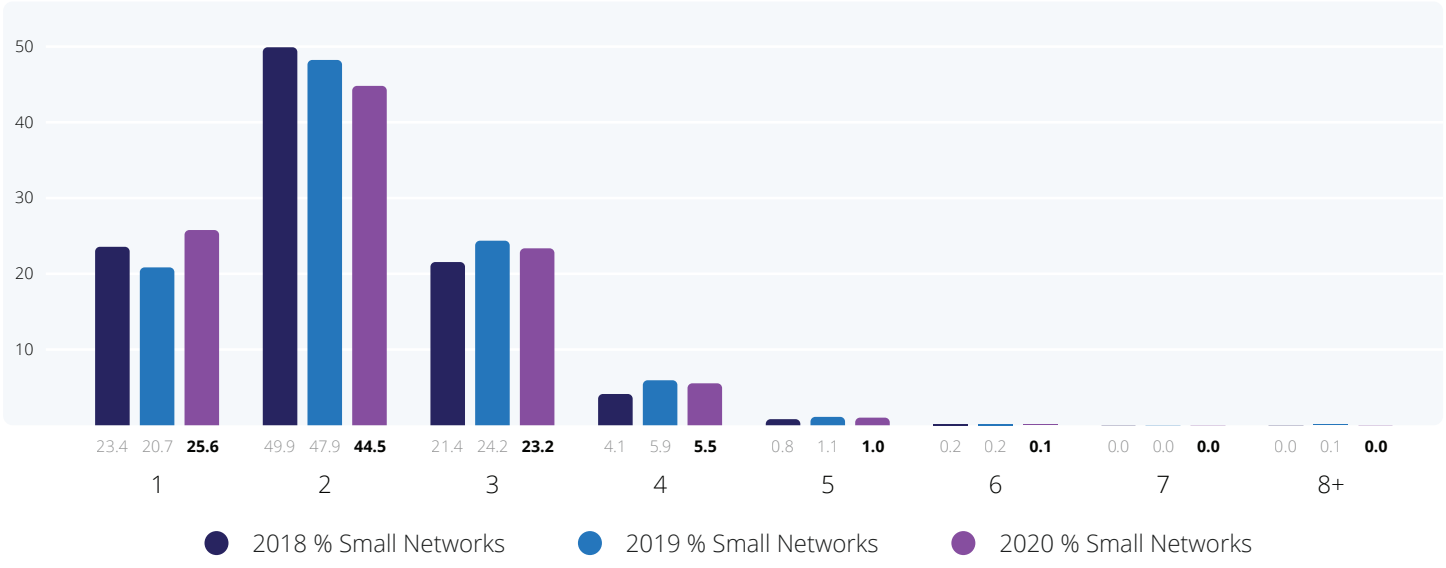
The number of different vendors on networks of all sizes remains relatively low.

Nearly 90% of networks of all sizes have one to three device vendors deployed on them. When separated by size, the number of network device vendors deployed stays small—70.1% of small networks have two or fewer network device vendors deployed, 78.6% medium networks have three or fewer, and 63.5% of large networks have three or fewer.

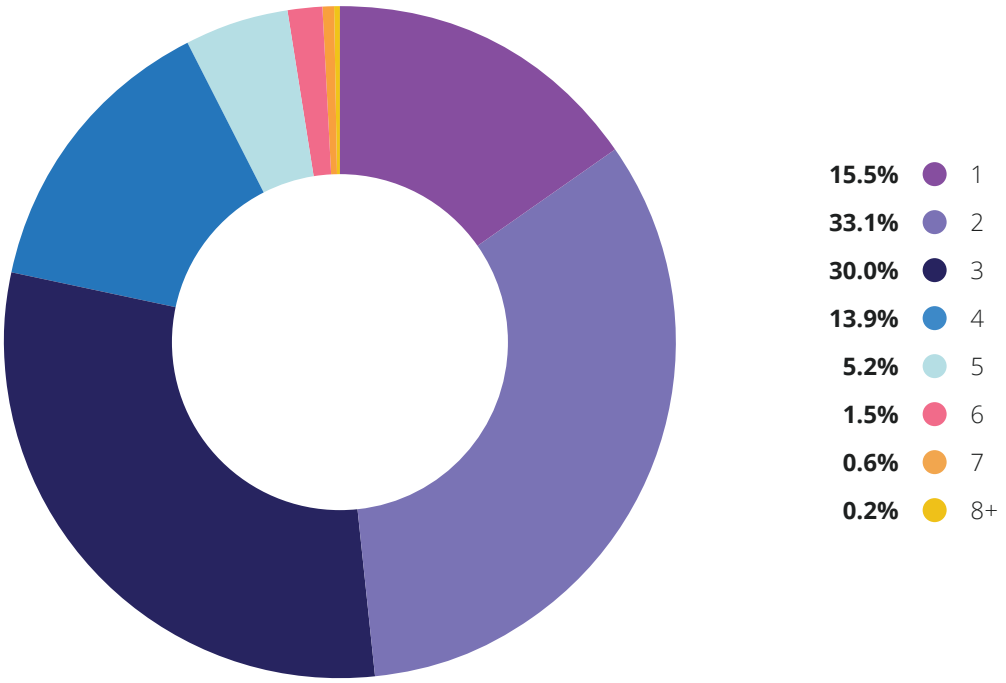
Number of Network Device Vendors Deployed on Small Networks **2020**



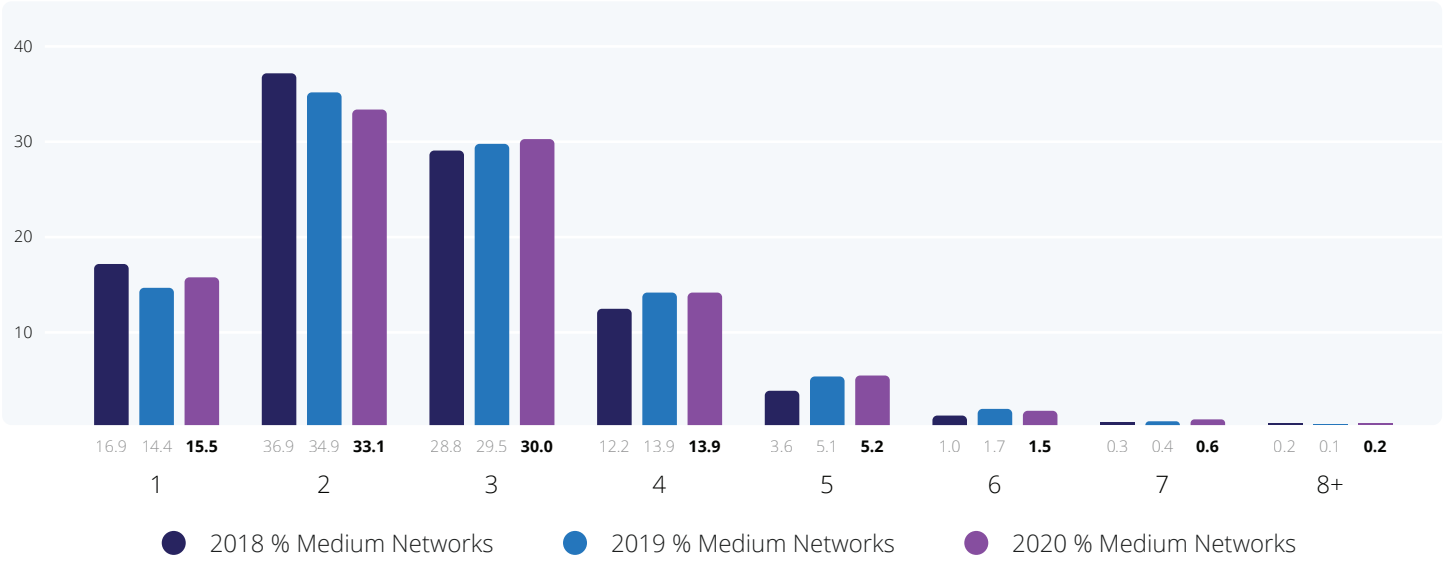
Number of Network Device Vendors Deployed on Small Networks **Year Over Year**



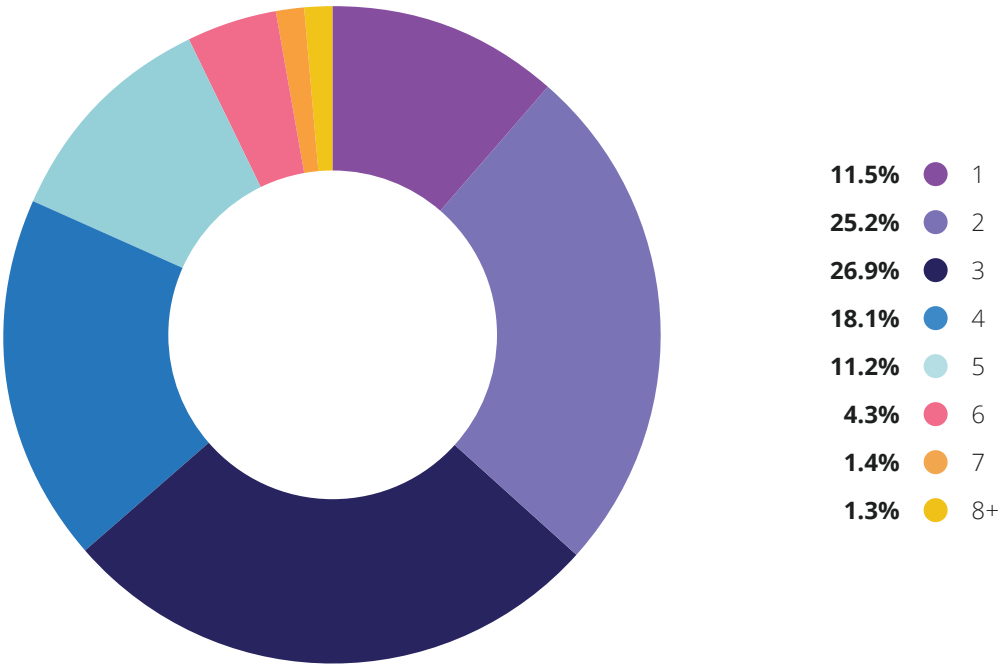
Number of Network Device Vendors Deployed on Medium Networks **2020**



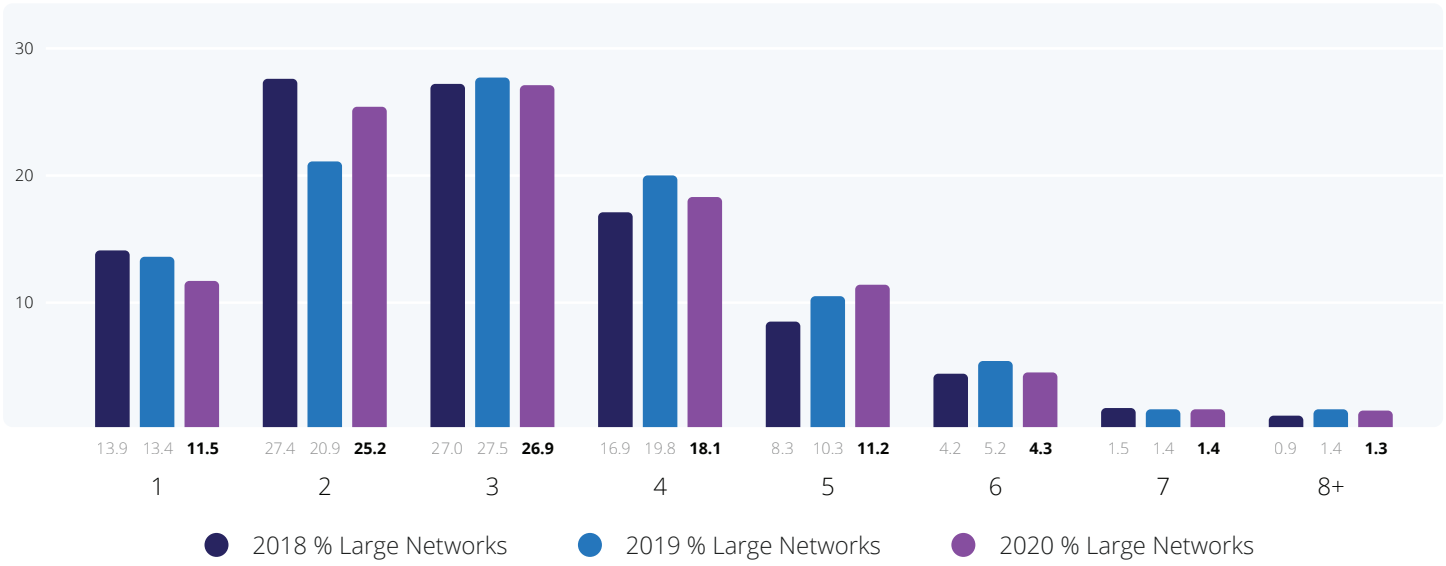
Number of Network Device Vendors Deployed on Medium Networks **Year Over Year**



Number of Network Device Vendors Deployed on Large Networks **2020**



Number of Network Device Vendors Deployed on Large Networks **Year Over Year**

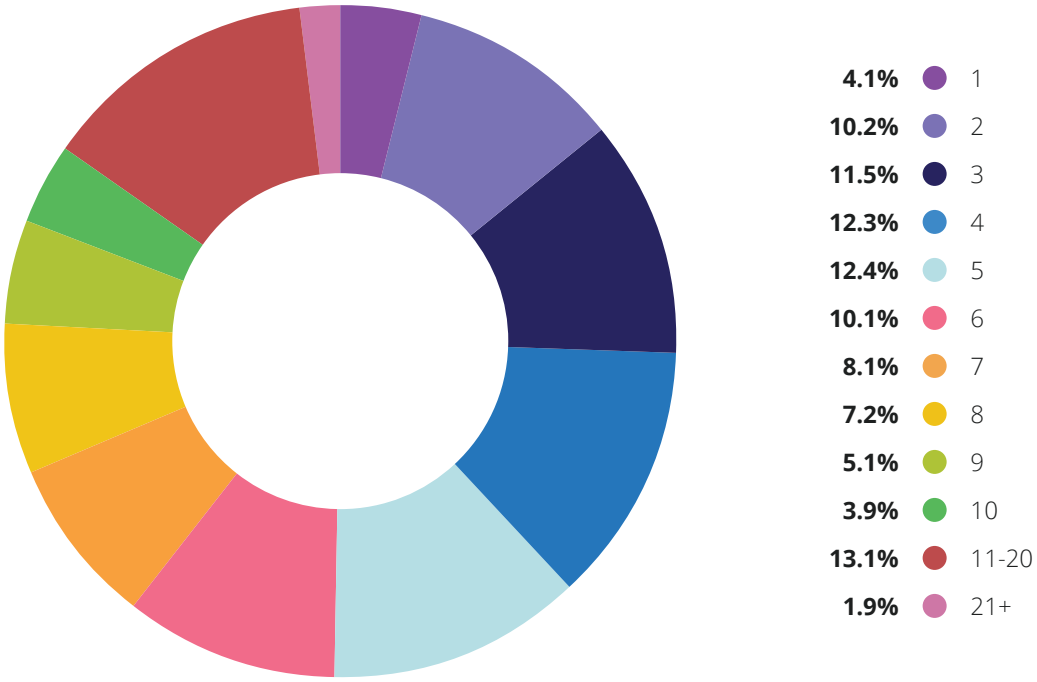


Network Vendor Diversity Among MSPs

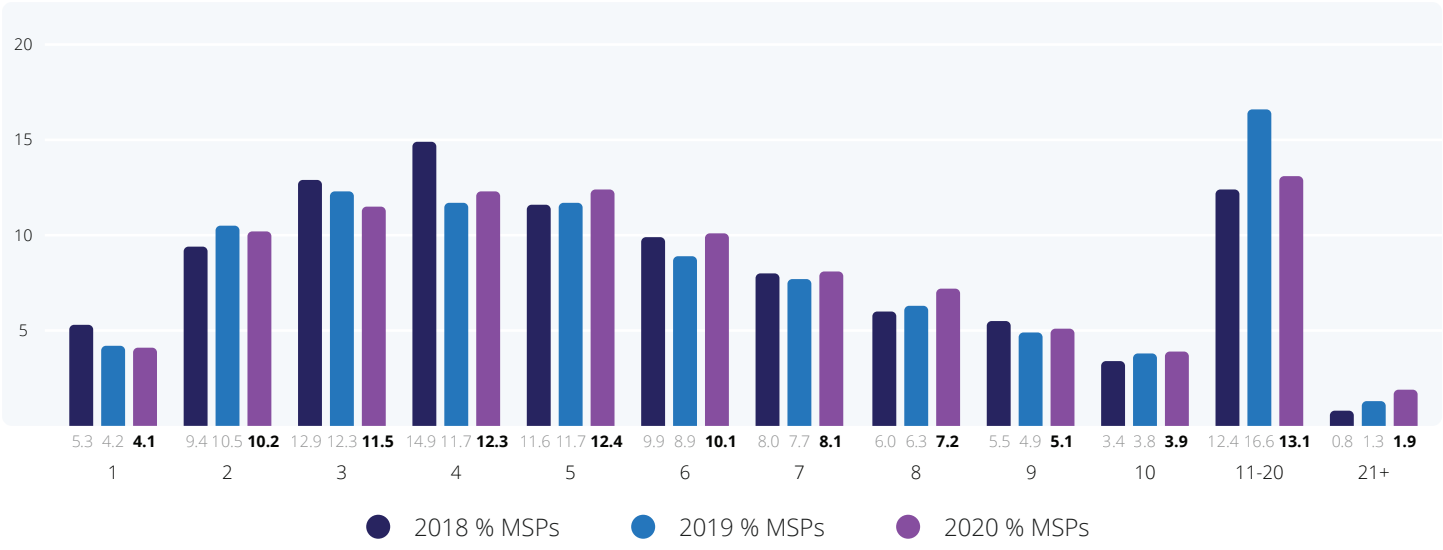
Number of Network Device Vendors Managed per MSP

Across All Network Sizes and MSP Sizes

Number of Network Vendors Managed by MSPs of All Sizes **2020**



Number of Network Vendors Managed by MSPs of All Sizes **Year Over Year**



Median of Network Device Vendors Managed

- 5 All MSPs
- 4 Small MSPs
- 8 Medium MSPs
- 15 Large MSPs

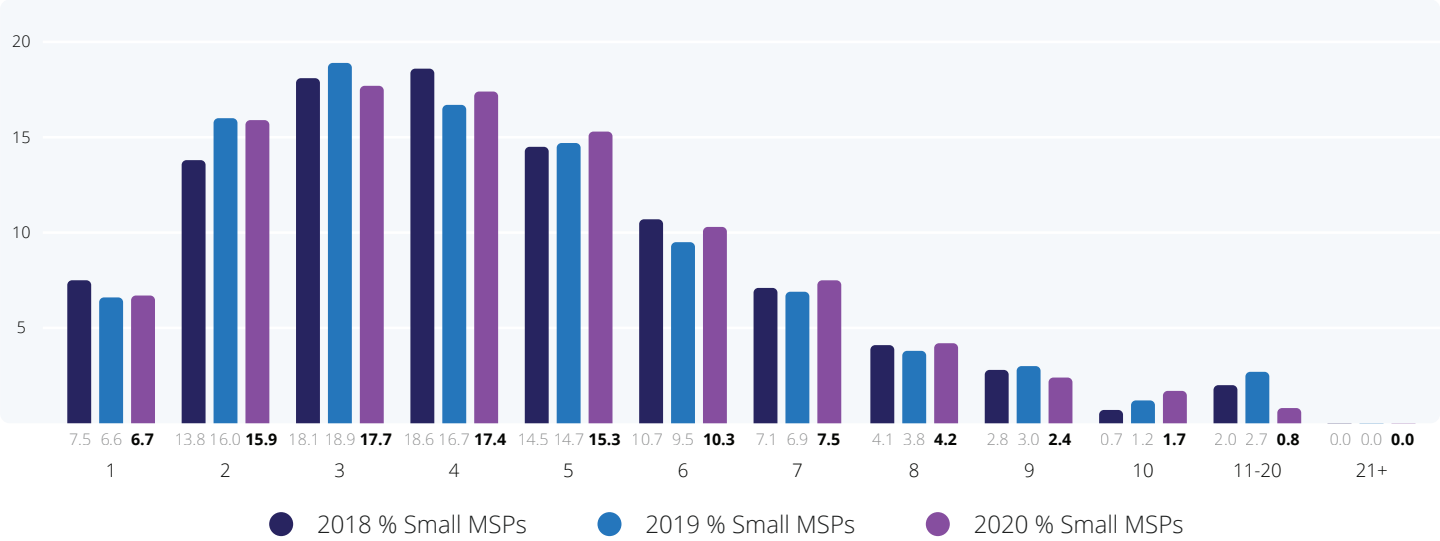
The median number of network device vendors managed by an MSP continues to vary significantly depending on the MSP size.

Nearly two-thirds of all MSPs are managing more than five network device vendors per client. As an MSP gets larger, so does the number of network device vendors they're responsible for managing. Large MSPs are also responsible for managing increasingly complex networks—the median number of network device vendors managed is up by two in the past year to 15.

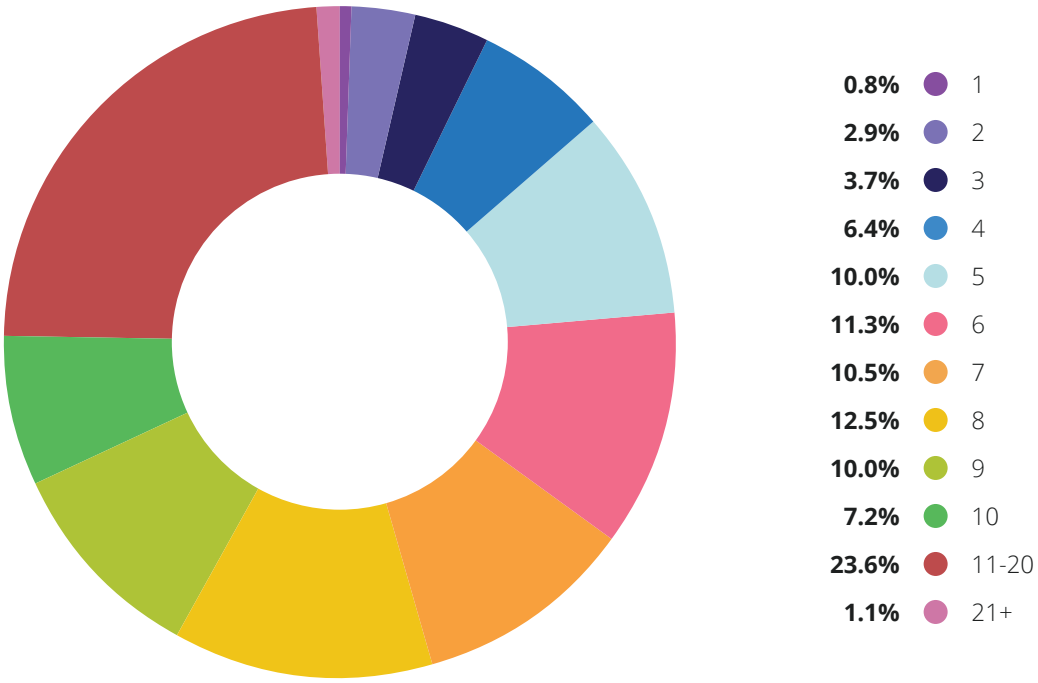
Number of Network Vendors Managed by Small MSPs **2020**

6.7%	1
15.9%	2
17.7%	3
17.4%	4
15.3%	5
10.3%	6
7.5%	7
4.2%	8
2.4%	9
1.7%	10
0.8%	11-20
0.0%	21+

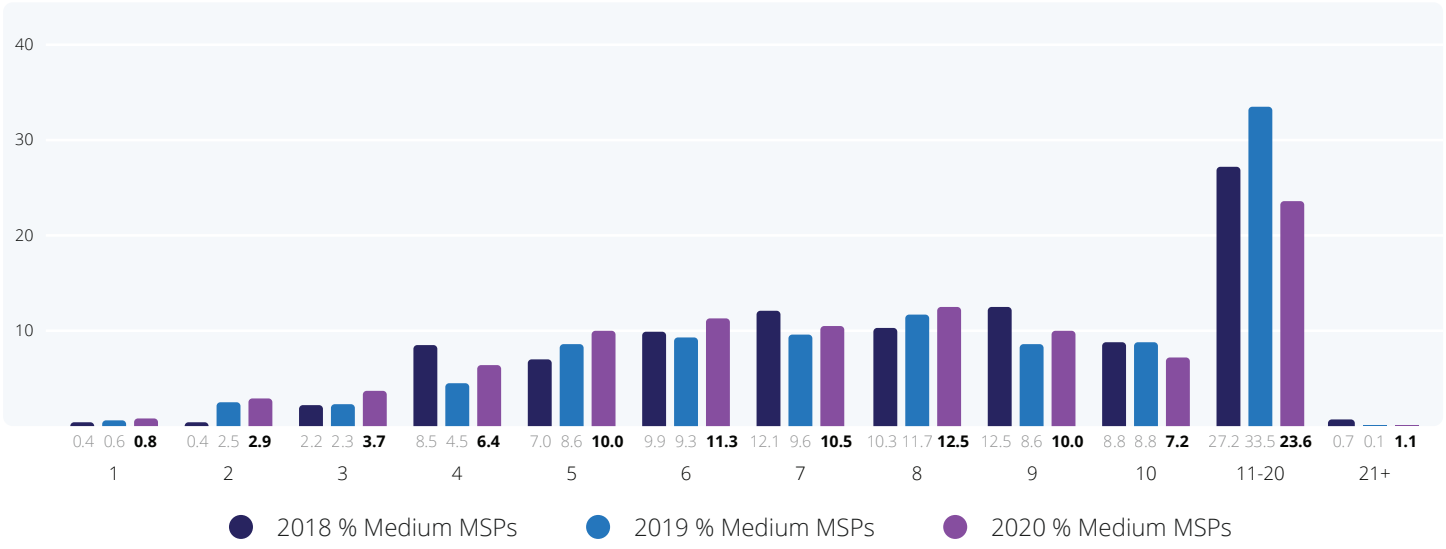
Number of Network Vendors Managed by Small MSPs **Year Over Year**



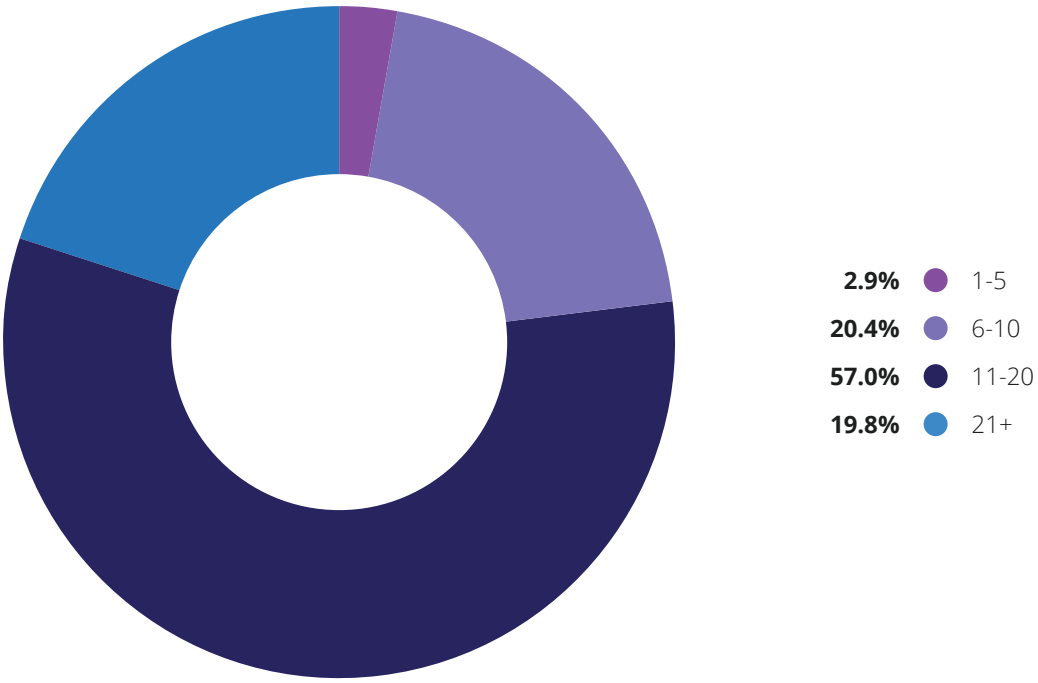
Number of Network Vendors Managed by Medium MSPs **2020**



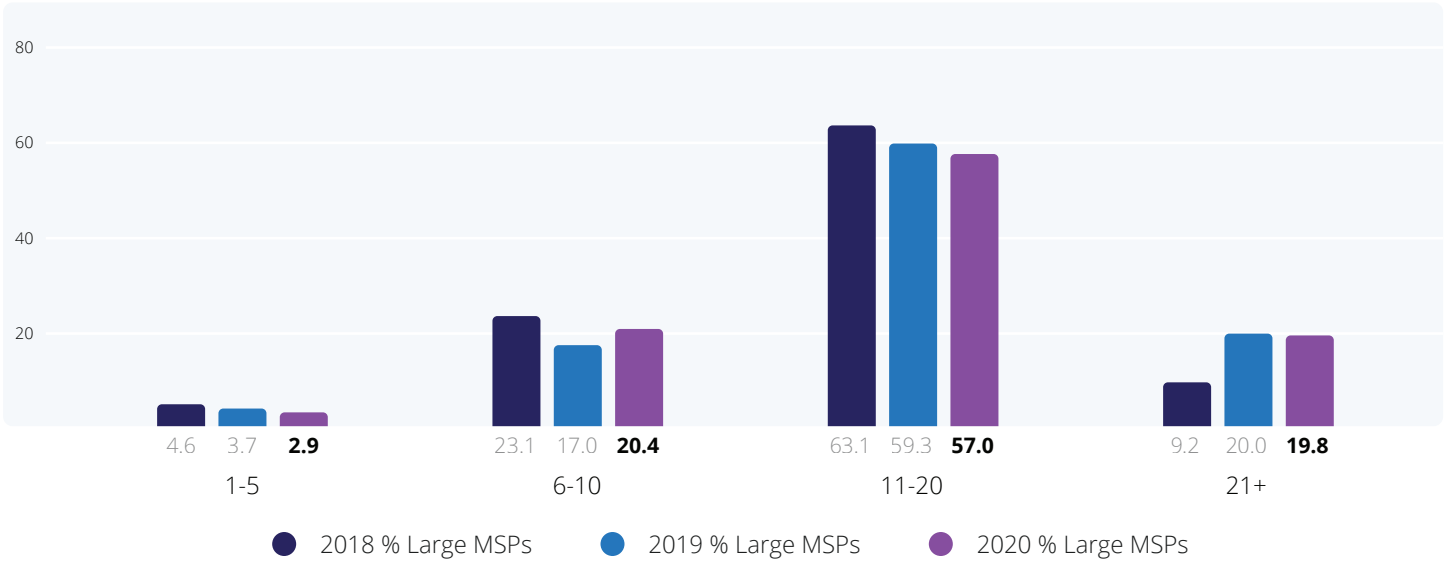
Number of Network Vendors Managed by Medium MSPs **Year Over Year**



Number of Network Vendors Managed by Large MSPs **2020**



Number of Network Vendors Managed by Large MSPs **Year Over Year**



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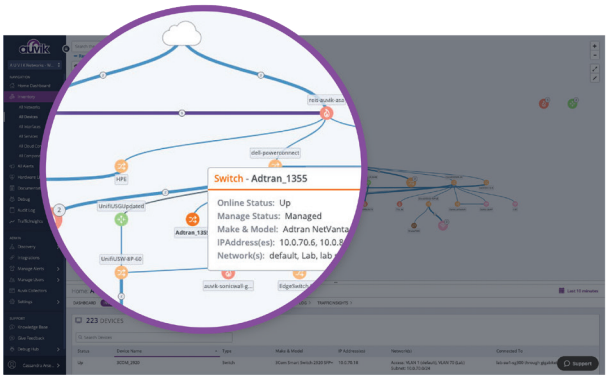
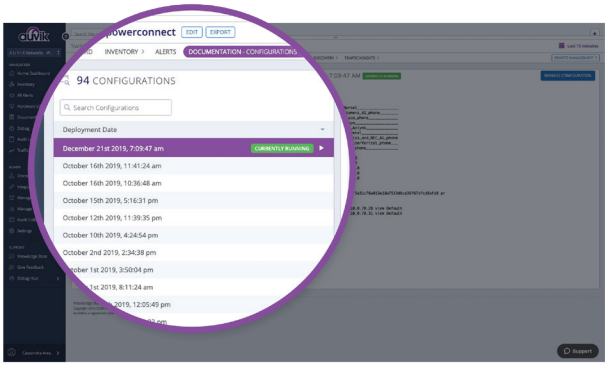


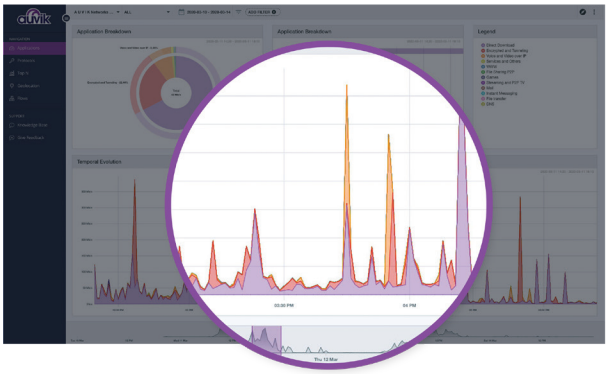
Real-time network mapping & inventory

Quickly discover & audit new networks. Then, stay in the loop—you'll always know exactly what's where, even as users & devices move.



Automated config backup & restore on network devices

Mitigate network risk with no manual effort.



Deep insights into network traffic & flows

Quickly solve network bottlenecks & spot potential security vulnerabilities.

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