



Network field report 2021:

How companies
manage their IT
networks



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Executive summary

The 2021 Network Field Report presents key takeaways on how in-house IT administrators at companies of various sizes manage their networks, how knowledgeable and confident they are about their networks, which tasks occupy the majority of their time, and how often they outsource network-related tasks and functions. In places, the report also compares this year's findings with the results of a similar study conducted in 2015.

RESPONSES FROM 353 IT PROFESSIONALS IN 2020 INDICATE:

Confidence in the network is generally quite high.

But almost a third of IT pros know nothing or very little about how their organization's network is configured. More than 75% of IT pros with no or little knowledge of their network configuration still report high or very high confidence in the networks. This could indicate a massive blind spot for these companies.

Network configuration changes happen frequently at companies of every size.

Despite these frequent changes, more than a quarter of organizations never or rarely update their network documentation. And only about one-third of organizations back up their network device configurations daily or weekly. These numbers also represent significant network risk for many companies.

IT pros are working fewer hours on reactive tasks than five years ago, which is good news.

But across the board, IT pros still spend much of their time on tasks that could be easily automated. On the positive side, this means there are plentiful opportunities to improve the efficiency and productivity of IT teams.

Overall, we see a significant portion of companies with vulnerabilities in their network management...

...including a lack of network visibility, configuration backups, proactive network planning, and up-to-date documentation.

Despite these vulnerabilities, the majority of IT pros report high confidence in their networks, indicating a potential mismatch between perception and reality: The biggest risk of all may be IT pros who are unaware of the weaknesses in their network management.

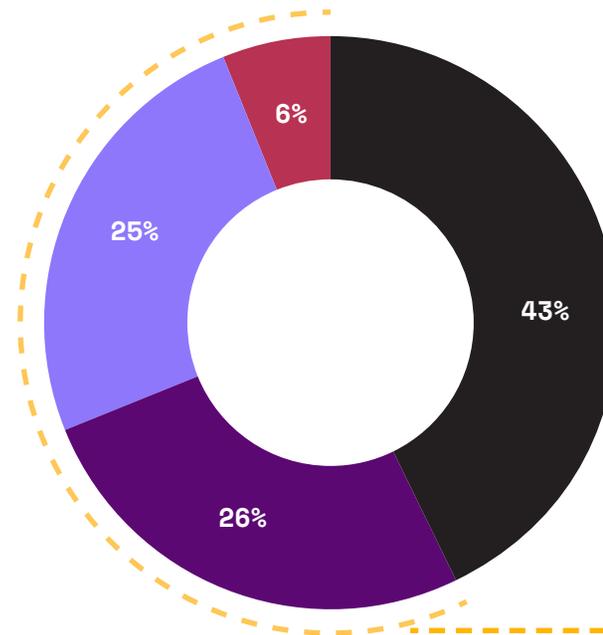
Knowledge about their organization's network

Although 43% of respondents know how all of their organization's network is configured, almost a third know only some or nothing at all. These latter companies are at high risk for network downtime and troubleshooting that takes far too long. Even the 26% of IT pros who know how most of the network is configured have blind spots that could cause problems.

Why does this matter?

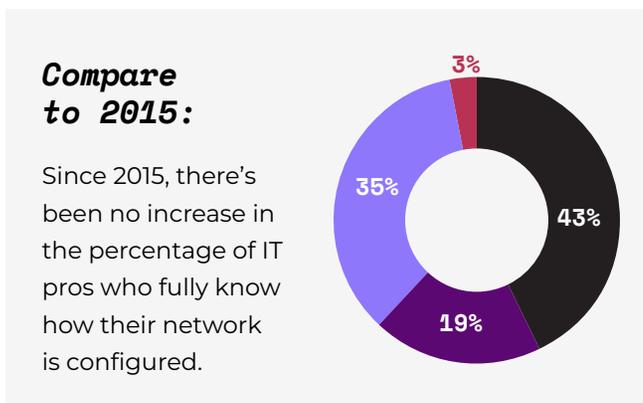
It's crucial that all IT pros who touch the network have detailed and up-to-date knowledge of everything on their organization's network and how it's configured. Armed with this knowledge, they can effectively and efficiently respond to network issues. Without it, they're flying blind, surprised by issues that might have been prevented. Troubleshooting takes much longer, consumes more resources, and increases downtime risk and duration.

Do you know how your organization's network is configured?



- I know how all of the network is configured
- I know how most of the network is configured
- I know how some of the network is configured
- I know how none of the network is configured

57% of IT pros have incomplete knowledge about how their network is configured.



Takeaway

Many IT pros aren't very knowledgeable about the configuration of their organization's network.



IT professionals from companies with fewer than 50 employees are particularly at risk of not understanding their network: Close to half say they know only some or nothing at all about how their network is configured.

Respondents from companies who've been in operation for 0 to 5 years and from 51 to 75 years know the least about their network configurations. A full 20% from 51- to 75-year-old companies know nothing at all, perhaps indicating larger teams where knowledge isn't spread evenly across all team members.

Configuration change frequency:

# of employees	1-10	11-50	51-100	101-250	251-500	501-1,000	1,000+
I know how all of the network is configured	43%	20%	37%	46%	47%	48%	39%
I know how most of the network is configured	14%	35%	24%	31%	22%	29%	25%
I know how some of the network is configured	36%	25%	34%	20%	23%	19%	30%
I know how none of the network is configured	7%	20%	5%	3%	8%	4%	7%
Some + none	43%	45%	39%	23%	31%	23%	37%

Years that organization has been in operation	0-5 years	6-9 years	10-25 years	26-50 years	51-75 years	76+ years
I know how all of the network is configured	22%	42%	50%	47%	30%	14%
I know how most of the network is configured	24%	27%	30%	19%	20%	43%
I know how some of the network is configured	43%	27%	15%	27%	30%	43%
I know how none of the network is configured	11%	4%	5%	7%	20%	0%
Some + none	54%	31%	20%	34%	50%	43%

Percentages in this document may not add exactly to 100 due to rounding.

Confidence in their organization's network

86% of IT pros have high or very high confidence in their organization's network. Yet as we saw in the previous takeaway, almost a third of IT pros know nothing or very little about how their organization's network is configured.

Why does this matter?

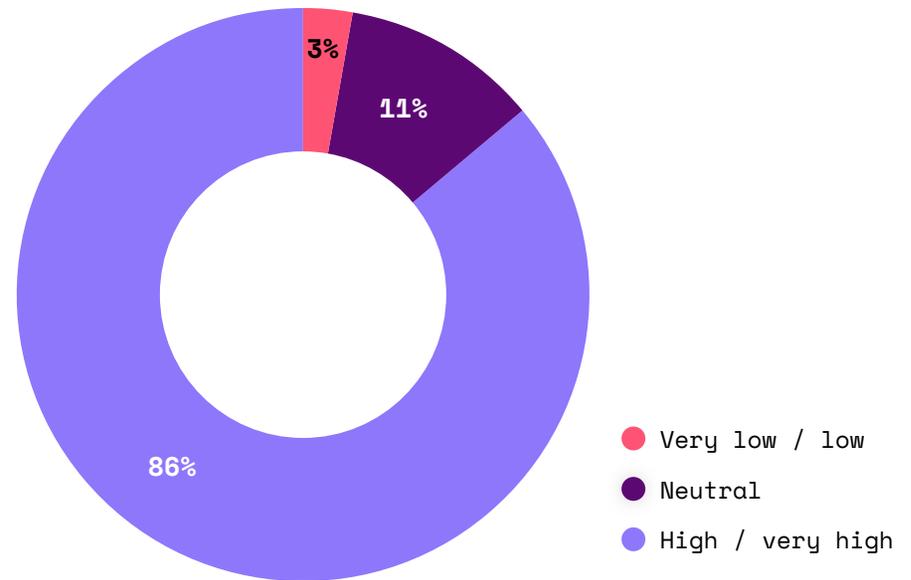
High confidence despite a lack of network knowledge and visibility could indicate massive blind spots for these companies.

Takeaway

Most respondents have high or very high confidence that their network meets the needs of the business. Confidence has increased since 2015.

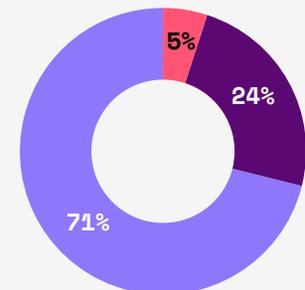


What level of confidence do you have in your network to meet the needs of your business?



Compare to 2015:

Confidence in the network has increased significantly since 2015.





We can see that more than 75% of IT pros with no or little knowledge of their network configuration still report high or very high confidence in the networks they manage.

Knowledge of network configuration:

Confidence level	I know how all of my network is configured	I know how most of my network is configured	I know how some of my network is configured	I know how none of my network is configured
Very low	1%	0%	2%	0%
Low	1%	3%	1%	0%
Neutral	5%	11%	21%	24%
High	33%	41%	52%	29%
Very high	61%	45%	24%	48%
High + very high	94%	86%	76%	77%

Despite a third of respondents saying they lack information about how their network is configured, virtually no one lacks confidence in their network.

Blind spot risk?

NETWORK ACTIVITIES

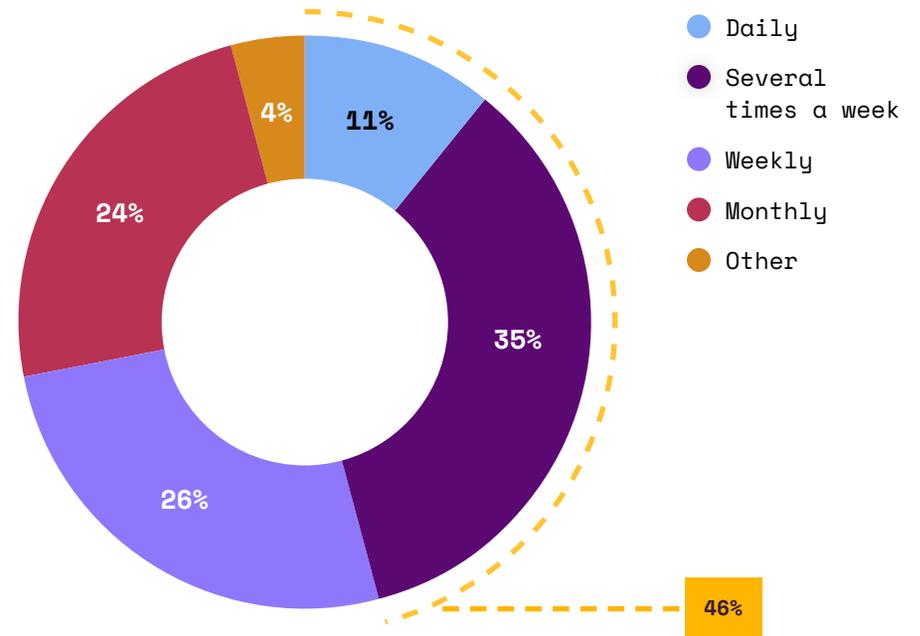
Configuration changes

This is an increase from 2015, when only 22% of respondents said configuration changes happened daily or several times a week. This could indicate an acceleration in how quickly networks need to respond to keep up with business realities.

Why does this matter?

Frequent configuration changes highlight the need for network visibility, documentation, and configuration backups to be in real-time. Always-current documentation means network managers have the information they need for faster troubleshooting and helps them protect the network against downtime.

How often are configuration changes made to your organization's network?



Takeaway

Network configuration changes occur daily or several times a week at nearly half of organizations.





Configuration change frequency:

# of employees	1-10	11-50	51-100	101-250	251-500	501-1,000	1,000+
Daily	14%	20%	5%	8%	11%	14%	8%
Several times a week	14%	10%	29%	36%	41%	41%	31%
Daily/several times a week	28%	30%	34%	44%	52%	55%	39%
Weekly	14%	30%	22%	23%	31%	25%	28%
Monthly	21%	15%	42%	31%	17%	19%	28%
Other	36%	25%	2%	3%	0%	0%	5%

IT pros from companies with 251 to 1000 employees report that configuration changes happen more frequently than those from smaller companies, which isn't surprising—we would expect bigger networks supporting bigger companies to need more frequent adjustments.

Updating network documentation

Notably, 27% of organizations never or rarely (a few times per year or yearly) update their network documentation. Most organizations update their network documentation weekly (24%) or monthly (28%), while only 11% update daily.

Why does this matter?

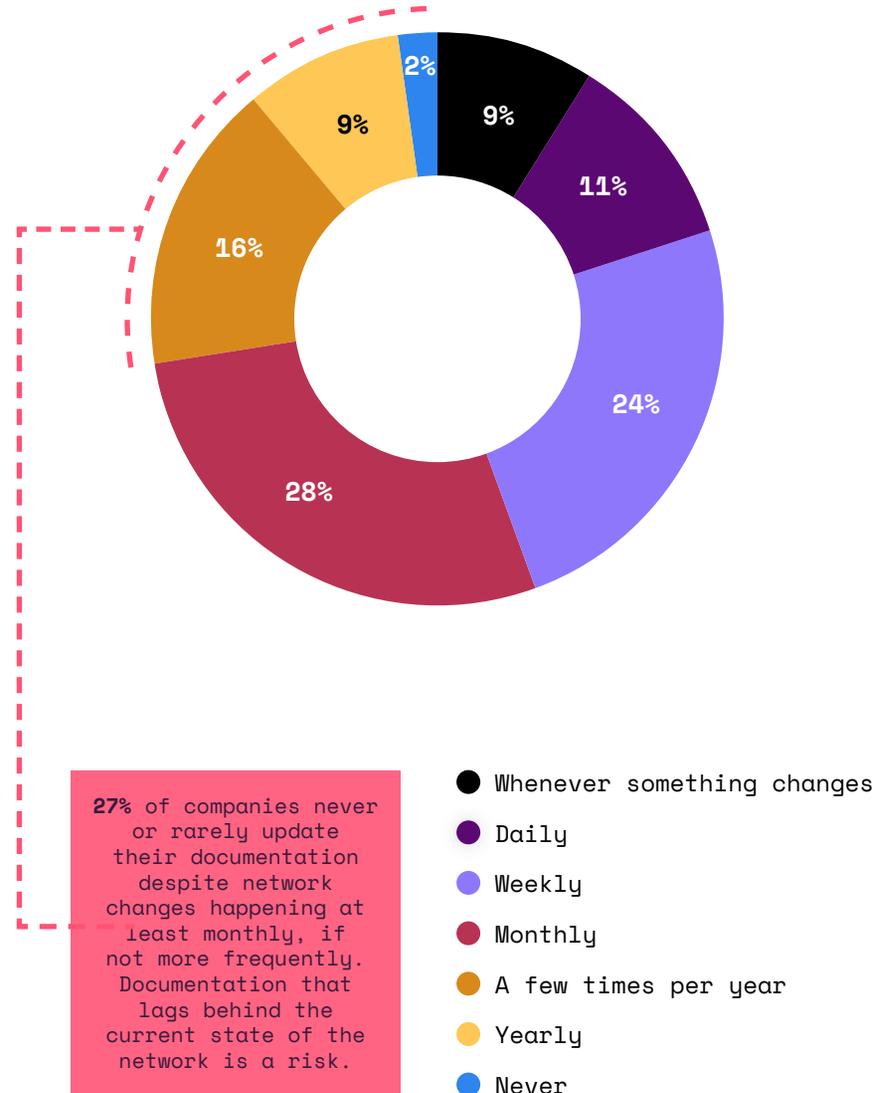
Up-to-date network documentation is crucial for any organization, particularly those where network configuration changes are frequent.

Takeaway

More than a quarter of organizations never or rarely update their network documentation and smaller organizations are most at risk of never updating.



How often does your network documentation get updated?





Documentation update frequency:

# of employees	1-10	11-50	51-100	101-250	251-500	501-1,000	1,000+
Whenever something changes	36%	20%	2%	13%	2%	4%	20%
Daily	7%	5%	12%	5%	13%	14%	10%
Weekly	14%	0%	17%	31%	31%	25%	26%
Monthly	21%	25%	32%	31%	25%	32%	23%
A few times per year	0%	30%	24%	13%	14%	17%	13%
Yearly	7%	5%	12%	5%	16%	9%	7%
Never	14%	15%	0%	3%	0%	0%	0%

Small organizations of 1 to 50 employees with only 1 IT employee are the most likely group to never update their network documentation. On the positive side, 36% of very small organizations (1 to 10 employees) update their network documentation whenever something changes.

Newer organizations in operation 5 years or less are the most likely group to update their network documentation daily, while very established organizations (that have been in operation for 76+ years) tend to update their network documentation whenever something changes. Daily or responsive updates point to the likelihood of a documentation automation tool being used.



Backing up network device configurations

Most organizations represented in this survey back up their network configurations monthly (29%), though only 20% back up weekly and 16% back up daily.

Why does this matter?

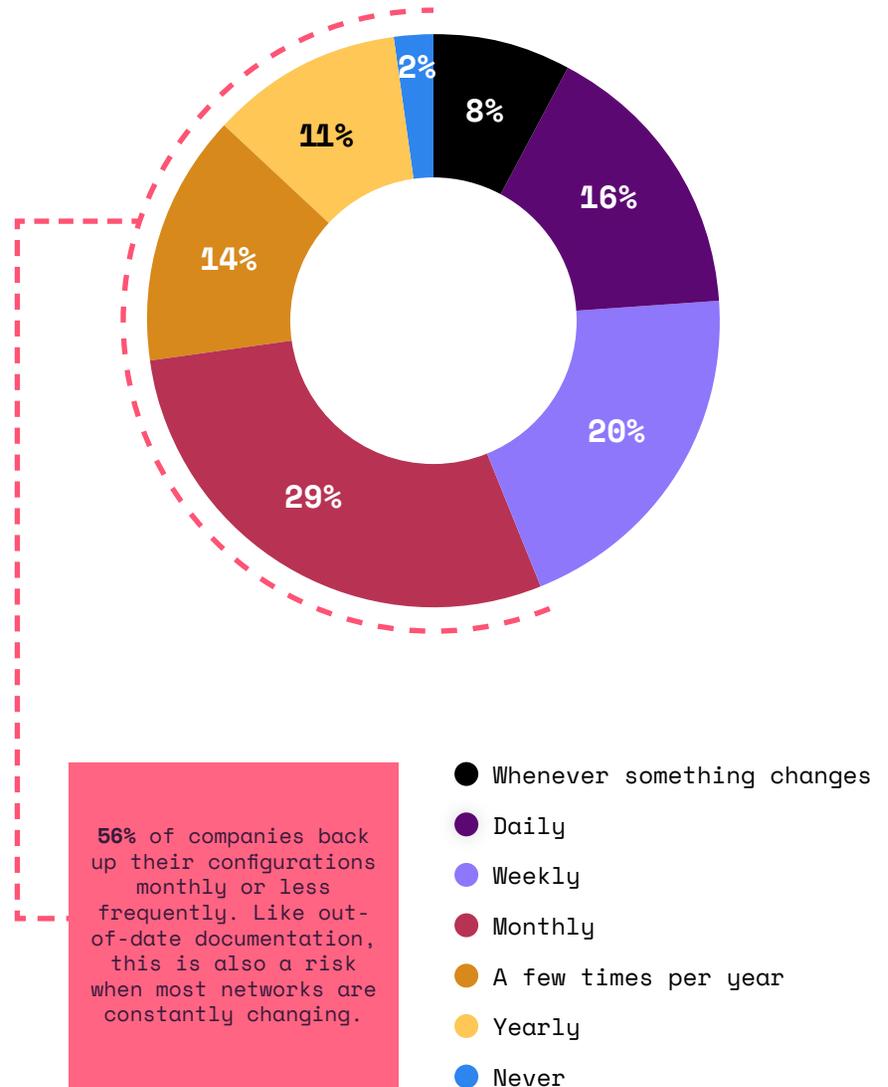
Backing up network device configurations is just as essential as updating network documentation. Companies that don't have backups of their network device configurations are at higher risk for extended downtimes.

Takeaway

Only about a third of organizations back up their network device configurations daily or weekly, and newer, small organizations are most at risk of never backing up.



How often does your organization's network configuration get backed up?





Configuration backup frequency:

# of employees	1-10	11-50	51-100	101-250	251-500	501-1,000	1,000+
Whenever something changes	14%	20%	10%	15%	3%	5%	8%
Daily	21%	10%	20%	18%	8%	12%	28%
Weekly	14%	10%	17%	8%	28%	25%	18%
Monthly	21%	20%	37%	31%	31%	28%	26%
A few times per year	7%	30%	5%	23%	13%	13%	13%
Yearly	0%	5%	12%	3%	16%	16%	5%
Never	21%	5%	0%	0%	2%	1%	0%

Small organizations (1 to 10 employees and 1 IT employee) are the most likely group to never back up.

As companies grow in size, their backup practices mature.

Outsourcing of network tasks and functions

Three-quarters of organizations outsource at least some network-related tasks or functions, primarily for network configuration, configuration backup, and monitoring.

Why does this matter?

Outsourcing network-related tasks can help organizations manage their workloads and ensure their networks are stable and secure.

Takeaway

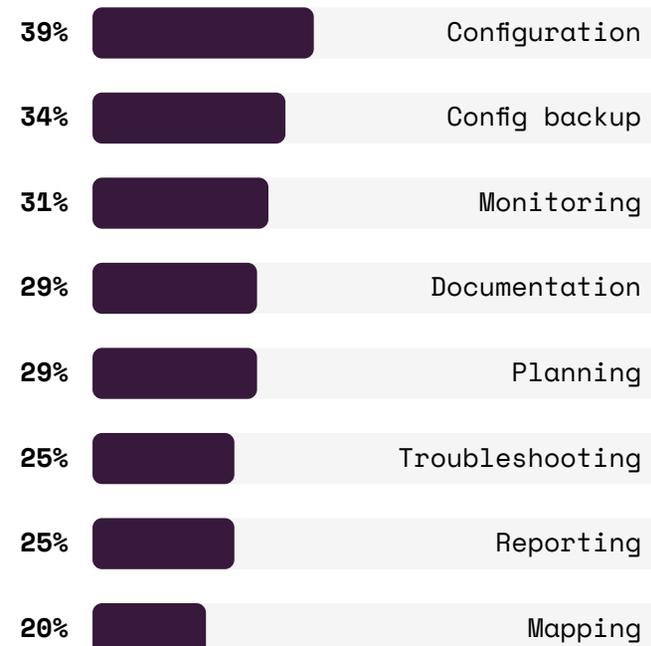
Most companies outsource some network-related tasks or functions, but very large and established organizations are the least likely to do so.



Does your organization currently outsource any network-related tasks or functions?



Which network-related tasks or functions does your organization outsource?





Does your organization currently outsource any network-related tasks or functions?

# of employees	1-10	11-50	51-100	101-250	251-500	501-1,000	1,000+
Yes	36%	60%	66%	62%	89%	82%	17%

Companies with 251 to 1000 are the most likely size organization to outsource, while very large companies (1,000+ employees) are unlikely to outsource.

Nearly 1 in 4 very small companies with fewer than 10 employees report having an IT professional on staff and do no outsourcing.

Snapshot of IT pro work weeks

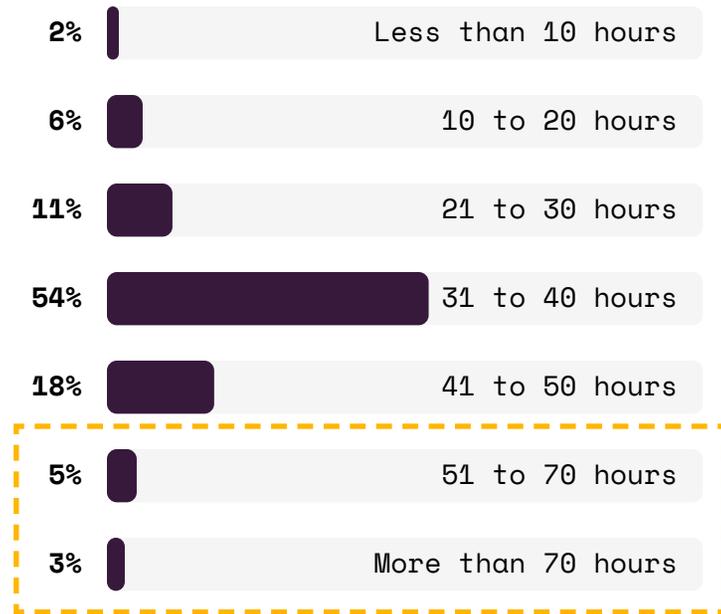
Most respondents (72%) work 31 to 50 hours per week, and only a small percent (8%) work more than 50 hours per week. This is a positive change from 2015, when 34% of IT pros worked more than 50 hours per week.



Takeaway

IT professionals at very small companies are more likely than IT professionals at larger organizations to work long hours, on reactive tasks.

How many hours do you work in an average week?



Not too many working overtime these days. Great news!



Hours worked per work week:

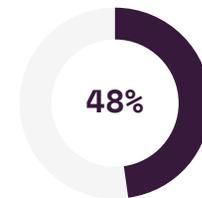
# of employees	1-10	11-50	51-100	101-250	251-500	501-1,000	1,000+
< 10 hours	14%	0%	0%	3%	5%	2%	0%
10 - 20 hours	14%	15%	5%	10%	2%	7%	3%
21 - 30 hours	7%	25%	17%	3%	3%	12%	15%
31 - 40 hours	29%	45%	66%	59%	59%	52%	53%
41 - 50 hours	14%	10%	7%	21%	17%	20%	23%
51 - 70 hours	0%	0%	5%	3%	6%	6%	5%
> 70 hours	21%	5%	0%	3%	8%	1%	2%

Respondents at organizations with only 1 to 10 employees are much more likely than those at larger companies to work more than 70 hours per week. Nearly one-quarter (21%) of respondents from small companies work more than 70 hours per week. This isn't surprising—small teams are often required to handle more workload and may not have the budget for automation tools that could significantly help.

On average, what percentage of your time per week do you spend on:



Proactive network tasks (e.g., planning, preventative maintenance, backups)



Reactive network tasks (e.g., troubleshooting)



Time spent on proactive vs. reactive tasks:

# of employees	1-10		11-50		51-100		101-250		251-500		501-1,000		1,000+								
	2021	vs. 2015	2021	vs. 2015	2021	vs. 2015	2021	vs. 2015	2021	vs. 2015	2021	vs. 2015	2021	vs. 2015							
Proactive	44%	—	44%	57%	^	45%	52%	^	44%	54%	^	36%	49%	^	42%	52%	^	48%	54%	^	29%
Reactive	56%	v	57%	43%	v	55%	48%	v	56%	46%	v	64%	51%	v	58%	48%	v	52%	46%	v	71%

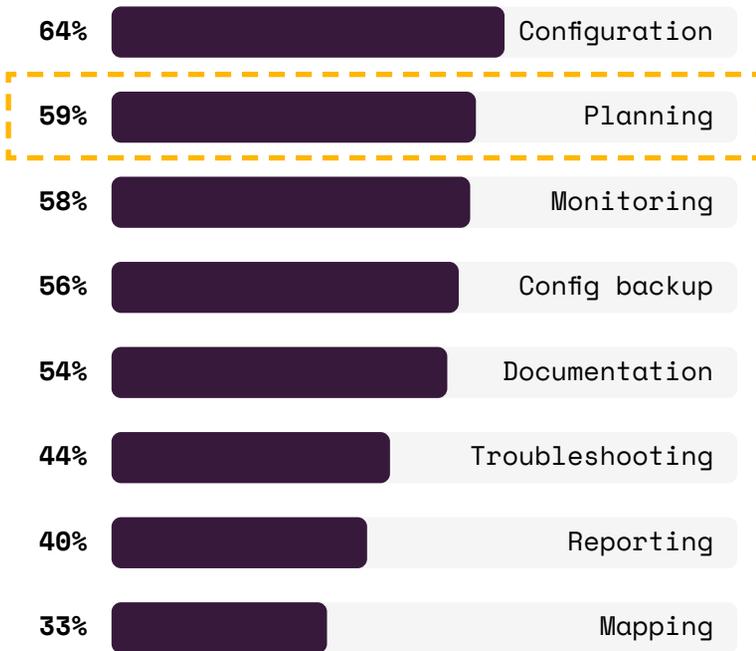
IT pros at very small companies also report spending more time on reactive tasks than do IT pros from larger companies. This is a change from 2015, when we saw IT pros from the largest companies (1,000+ employees) reporting the most time spent on reactive tasks and the least time on proactive ones.

Why does this matter?

Time spent on reactive tasks will always be necessary, given the dynamic nature of IT systems and customer needs. But best practices call for management and automation systems to better manage IT risks and so IT staff time can be better spent on proactive, forward-thinking activities.

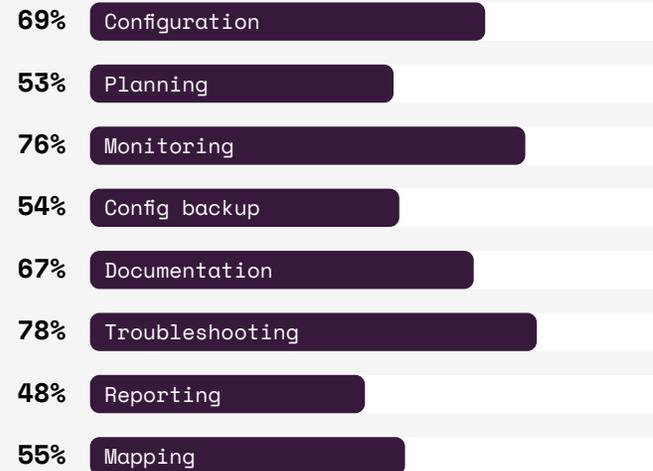
Companies of all sizes are reporting spending less time on reactive tasks than in 2015.

Which network management activities does your company engage in?



The flip side = 41% of companies do no network planning.

Compare to 2015:



Takeaway

Nearly half of organizations spend no time on network planning.





Takeaway

IT professionals spend much of their time on tasks that could be easily automated.

As was the case in 2015, IT pros spend a lot of time on activities that could be easily automated: network configuration backup (61%), documentation (58%), and mapping (55%).

Why does this matter?

These are time-consuming, error-prone tasks when done manually, and they create massive inefficiencies within the IT team. IT pros should instead be using software tools to help manage or entirely automate these activities.

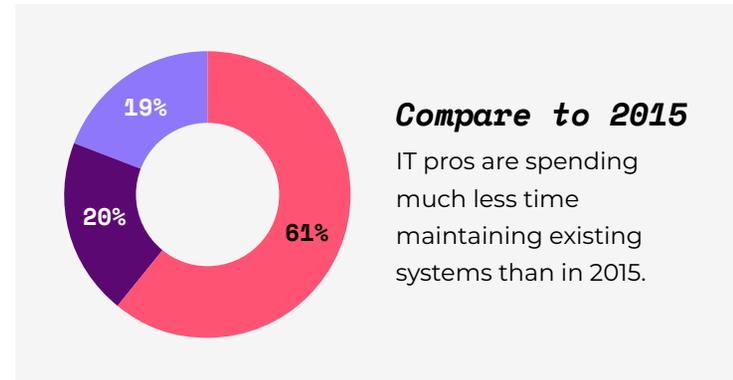
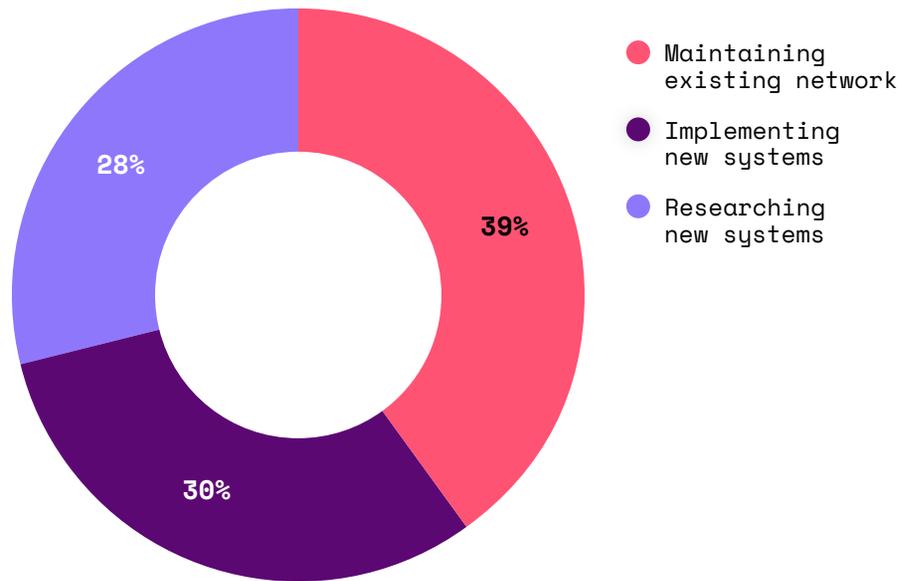
There are opportunities for automation in these areas!

Automation opportunity! These numbers can easily be reduced to 0 with automated mapping software, resulting in significant time savings for these companies

In a typical week, how often do you work on:

	Very frequently	Frequently	Sometimes	Rarely	Never
Team management	36%	28%	22%	7%	7%
Network monitoring	33%	33%	20%	8%	6%
Network configuration backup	30%	31%	23%	10%	7%
Network troubleshooting	29%	30%	27%	7%	7%
Network configuration	28%	35%	22%	8%	7%
Network mapping	28%	27%	29%	9%	7%
Network documentation	28%	30%	26%	11%	6%
Network planning	27%	35%	24%	7%	7%
Network vendor management	27%	32%	24%	10%	7%
Reporting on past & current network performance	25%	35%	26%	7%	6%

On average, what percentage of your time per week do you spend on:



Takeaway

IT pros spend more than half their time researching and implementing new systems.

Takeaway

More than half of an IT pro's time is spent on projects they hate or tolerate.

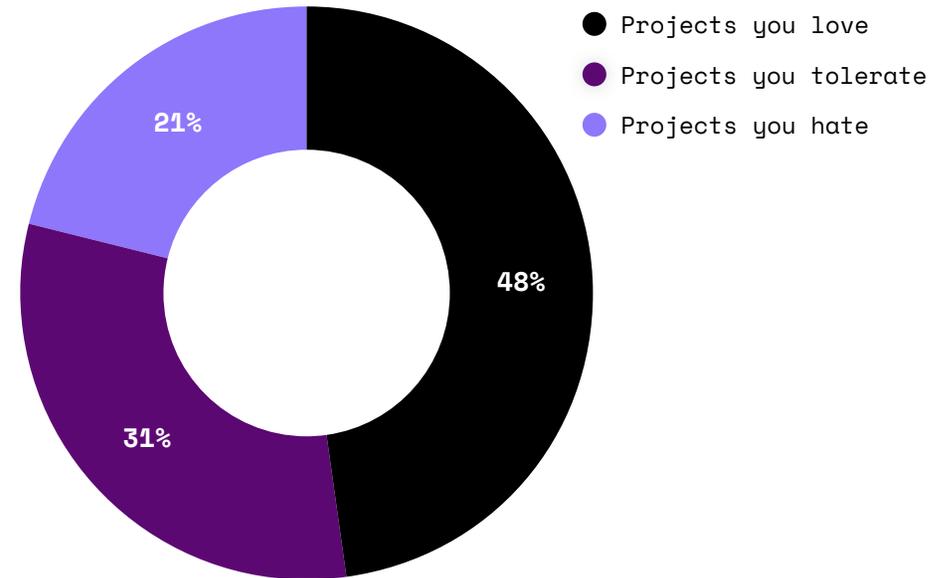


Most aren't able to engage in extra activities that interest them because they don't have enough time. Lacking authorization to move ahead and lacking required expertise are also factors.

Why does this matter?

While not every task can be a passion project, too much grunt work and tedious activity can increase employee burnout and decrease productivity.

On average, what percentage of your time per week do you spend on:



Reasons for not engaging in wish list activities:





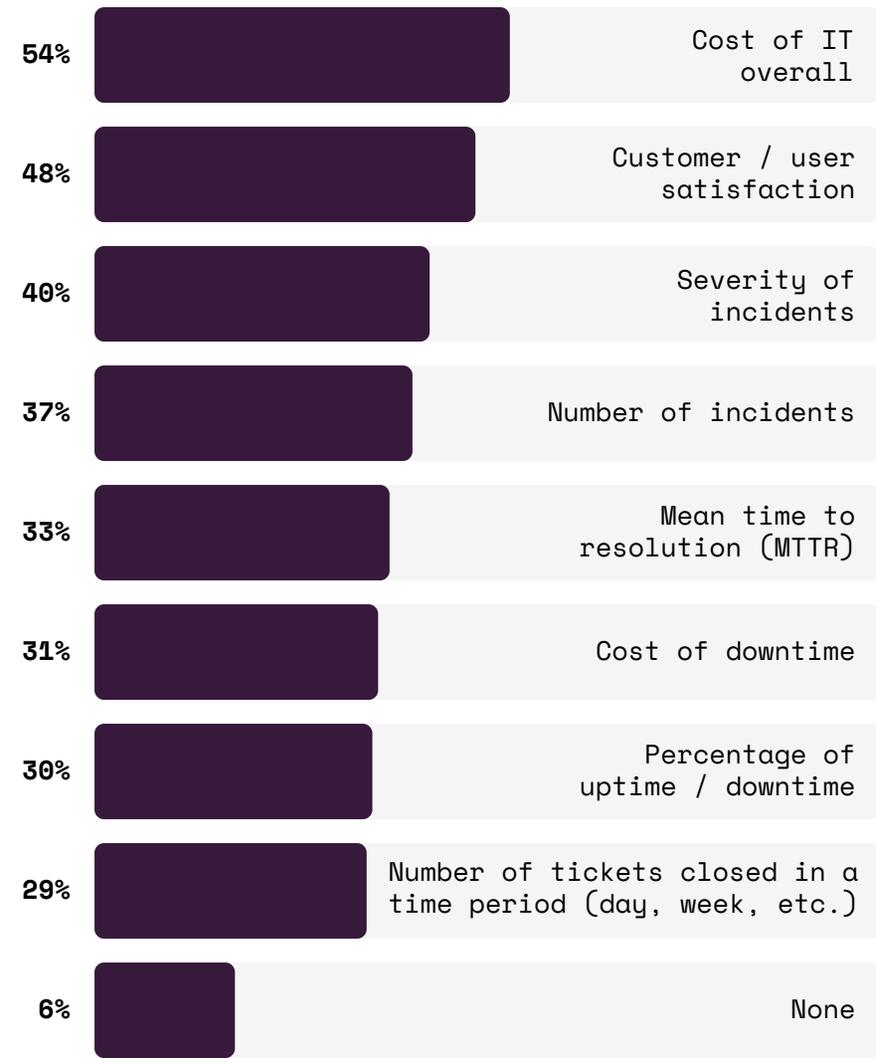
Takeaway

Cost is a dominant metric in IT departments, with just over half of IT pros saying they're measured on it.

With 54% of IT pros reporting they're evaluated on the overall cost of IT, it's the top benchmark companies use to measure success. User satisfaction is the next most commonly used metric.

Interestingly, only about a third of IT pros report being evaluated according to key performance indicators such as the percentage of uptime/downtime, cost of downtime, or the mean time to resolution of incidents. This may lead teams to choose cost containment over solutions that could improve network stability.

What metrics are you tracked and evaluated on in your role in the organization?





Study methodology:

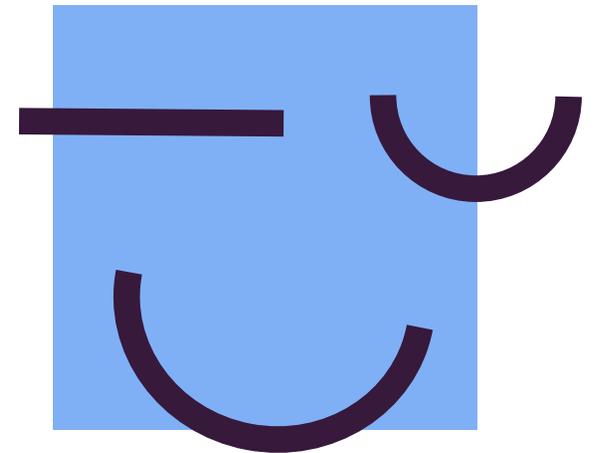
What we did

This report presents the results from an online survey that was conducted on behalf of Auvik Networks and was completed by IT managers, IT directors, IT specialists, network managers, and network administrators working in the US or Canada. The survey fielded from August 17 through August 21, 2020. The objective of this survey was to better understand how in-house IT administrators at companies of various sizes manage their networks, how knowledgeable and confident they are about their networks, which tasks occupy the majority of their time, and how often they outsource network-related tasks and functions.

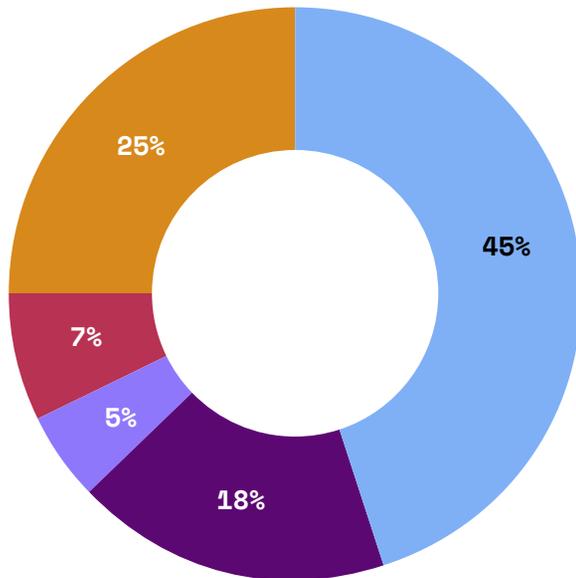
Study respondents:

Who they are

A total of 353 IT professionals completed the survey. About three-quarters of respondents live in the US and one-quarter live in Canada.

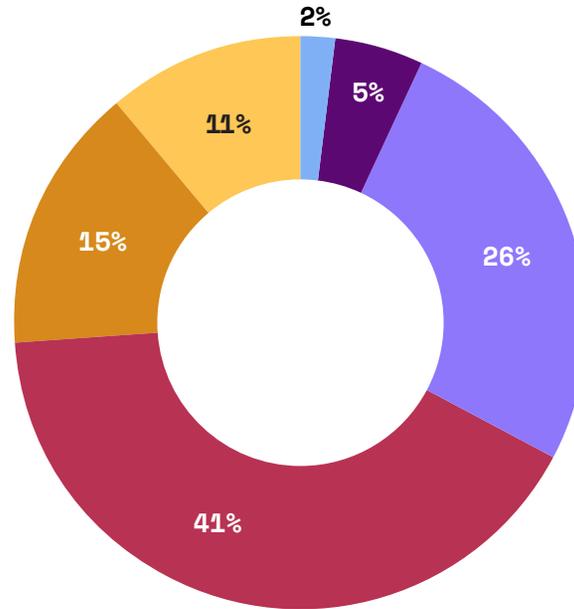


What role do you play in the organization where you currently work?



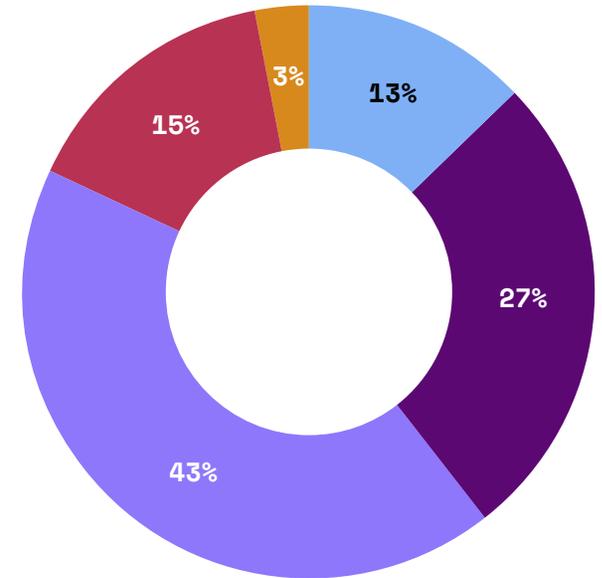
- I manage a large team (10 or more people)
- I manage a small team (< 10 people)
- I'm on a large team (10 or more people) but I don't manage it
- I'm on a small team (< 10 people) but I don't manage it
- I'm the only IT person

How many years of IT experience do you have?



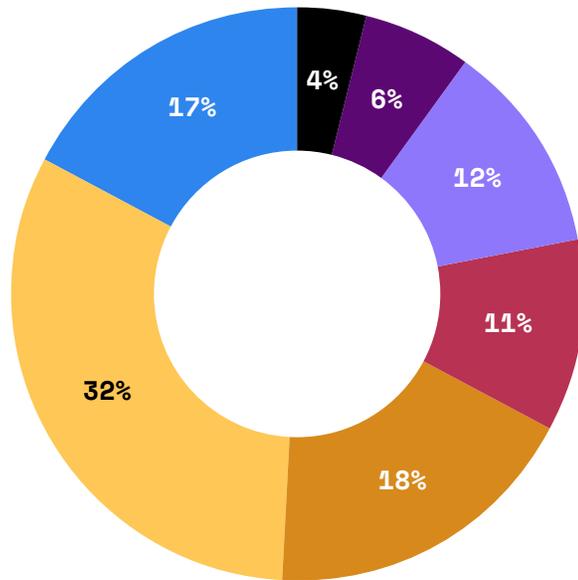
- < 1 year
- 1-2 years
- 3-5 years
- 6-10 years
- 11-15 years
- 16+ years

How many IT certifications do you have?



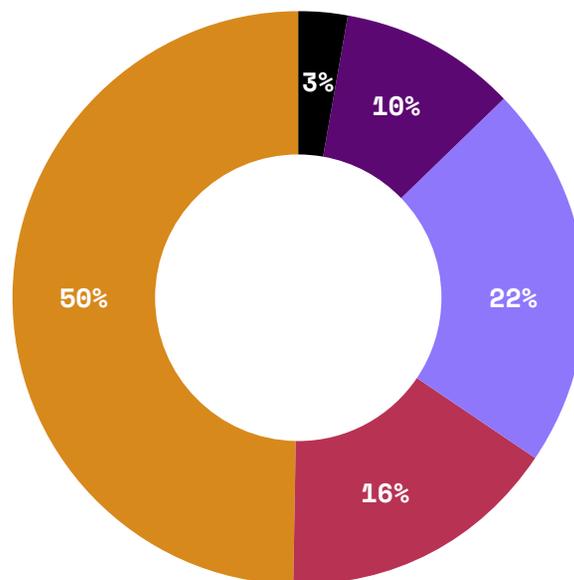
- None
- 1-2
- 3-5
- 6-10
- 11+

How many employees work at your organization?



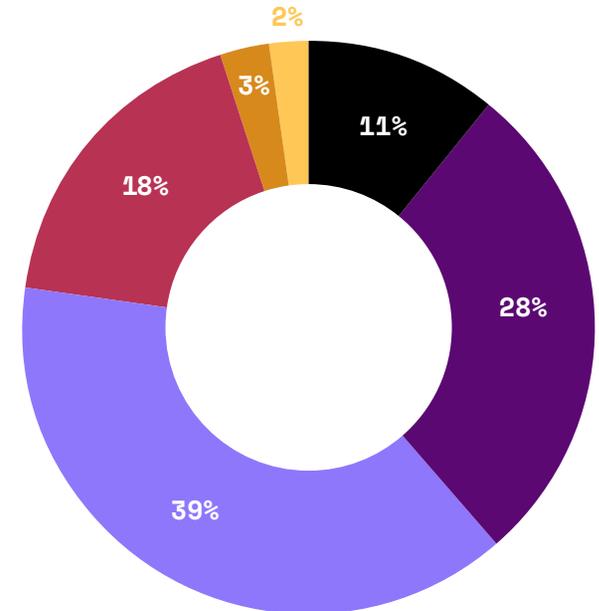
- 1-10
- 11-50
- 51-100
- 101-250
- 251-500
- 501-1,000
- 1,000+

How many employees work in IT at your organization?



- 1
- 2-5
- 6-10
- 11-15
- 16+

How many years has your organization been in operation?



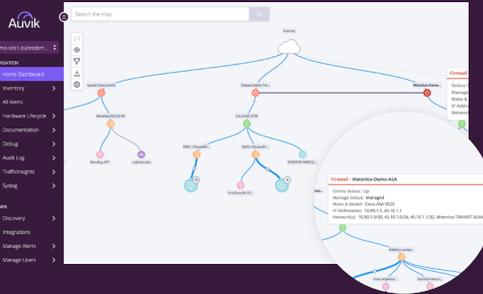
- 0-5 years
- 6-9 years
- 10-25 years
- 26-50 years
- 51-75 years
- 76+ years



When networks run the world, network management is everything.

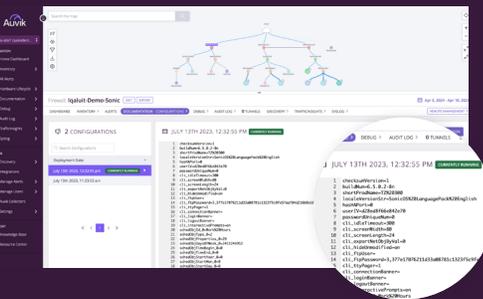
Gain true network visibility and control with Auvik.

Use free for 14 days



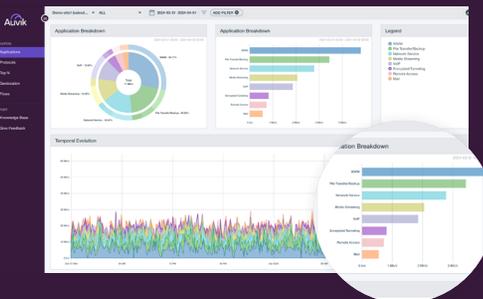
Real-time network mapping & inventory

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 on network devices

Mitigate network risk with no manual effort.



Deep insights into network traffic & flows

Quickly solve network bottle necks & spot potential security vulnerabilities.