



The State of SYSTEM Administration

2019

How Sys Admins face the challenges and requirements of the job.

Tricerat's State of System Administration survey is an in-depth study of system and network administrators, engineers, and architects.



INTRO

Arguably one of the most important and yet underrated jobs in our workforce is that of the system administrator. Whatever the job title – **system administrator, network engineer, architect** – the responsibility of making our IT systems run smoothly falls to them.

For over 20 years, Tricerat has existed to support those doing the critical work of system administration. Our 2019 System Administration survey highlights just how important these employees are to an organization's successes. Survey results dive deep into **how system admins can succeed in their careers**, and **how employers can understand and support these employees**.



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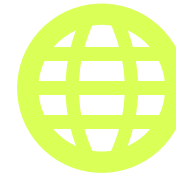
WHO RESPONDED TO THIS SURVEY?

We sent out the call, and **over 130 people responded** to our request for data. **13 countries** from around the globe are represented (but most respondents lived in the US or Canada). Ages ranged from 25-65+, with most around **35-54 years** old.

Job title

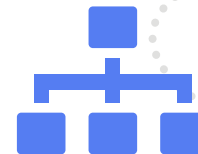
System/Network Administrator	49%
System/Network Engineer	23%
System/Network Architect	19%
System/Network Manager	7%
Director or above	2%

130+ respondents



13 countries

Most 35-54 years old



50% are team leads, and
34% have direct reports

66% support both internal and
external systems and/or users



(6% support only external systems only; 28% support internal systems and/or users only)





⏻ THIS WORK IS NOT FOR THE FAINT OF HEART

In today's modern economy, technology is the backbone of every organization. And the brains behind the backbone? **System administrators**. For better or for worse, the mark of a good sys admin is to have the rest of the organization forget they are in the background. But they are there, working tirelessly to catch problems before they arise, and stopping them when they do.

To help, we've used our survey data to create **snapshots into the daily lives** of these vital employees.



A-Day-In-The-Life
Snapshots

System administrators continue to find themselves pressed for the time and tools they need to do their daily tasks.

IT budgets and staffing resources never seem sufficient. 43% of companies expect their IT budgets to **stay the same** over the next 12 months and 59% of companies are **not planning on increasing the size of their IT teams**.

Knowing that IT budgets and employee count most likely won't be changing in any meaningful way next year, what does a day in the life of a system administrator look like? We've broken it into two sections:

TECHNICAL

- What systems and applications are you using daily?
- How do you organize your workload?
- What is the most time-consuming aspect of your job?

INTERPERSONAL

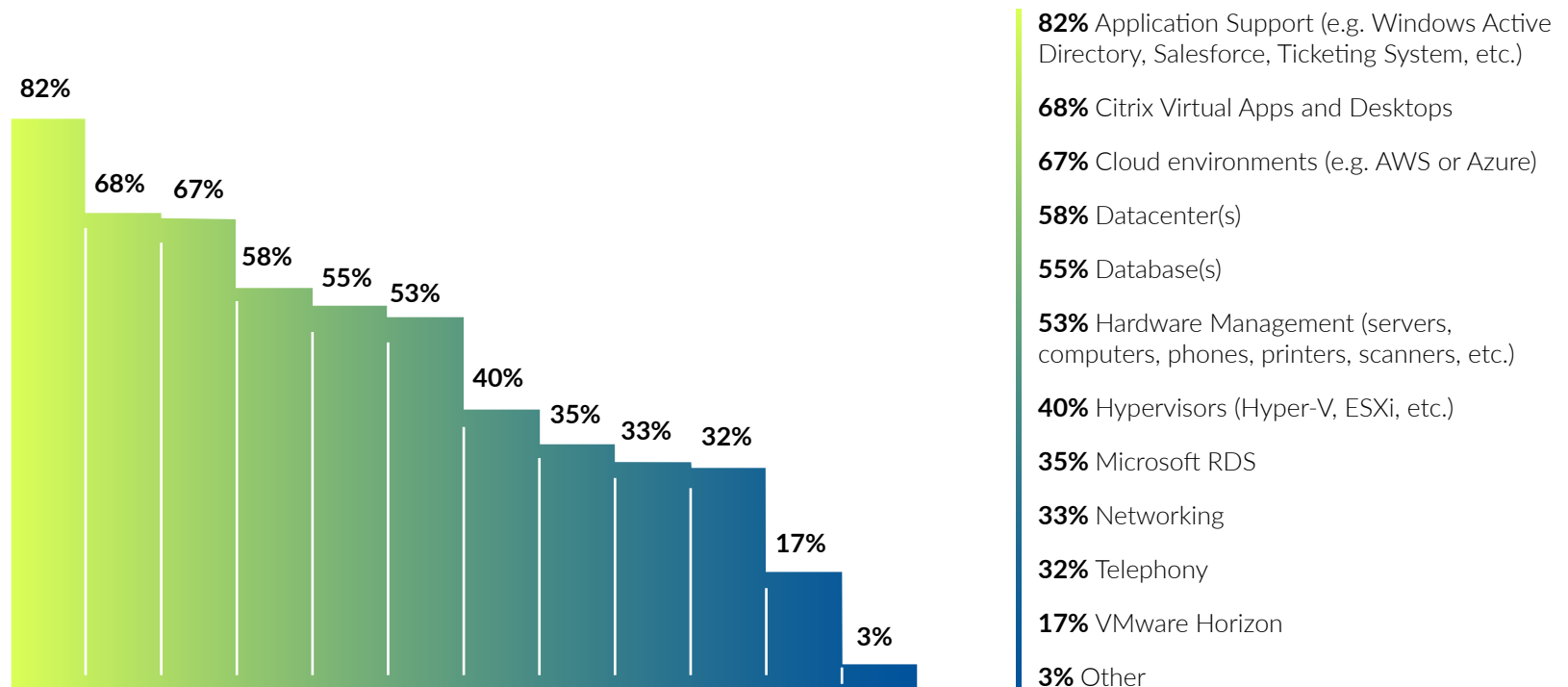
- How often do you have to deal with end users?
- Do meetings take up a large chunk of your day?
- Do you have to worry about things like SLAs, escalation, and documentation?

* (<https://www.spiceworks.com/marketing/state-of-it/report/> and <https://www.spiceworks.com/marketing/state-of-it/report/it-careers/>)

Snapshots: Daily Life
Technical

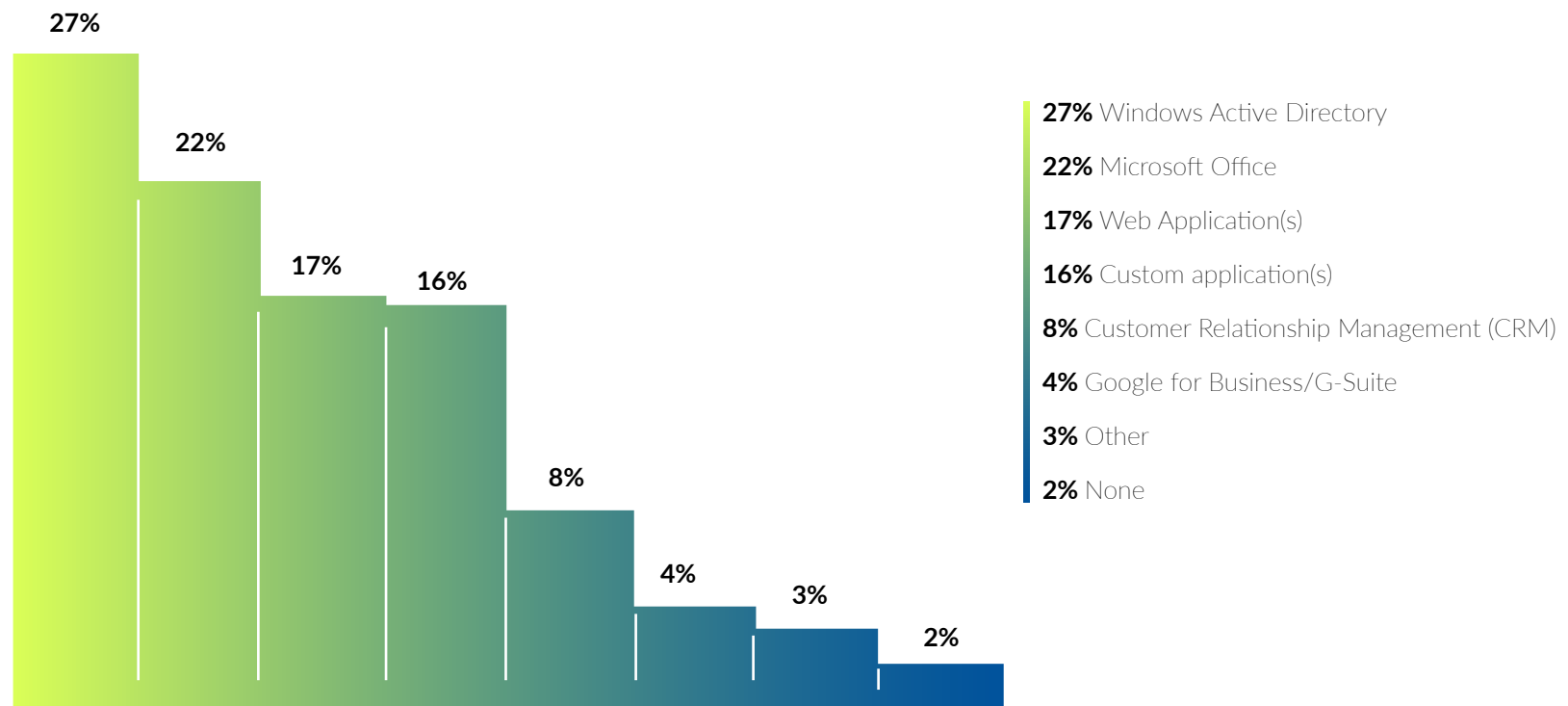
What system(s) and/or environment(s) do you support/manage? (multi-select)

Over half (68%!) of system administrators have to deal with hardware management - that's in addition to system and network responsibilities.



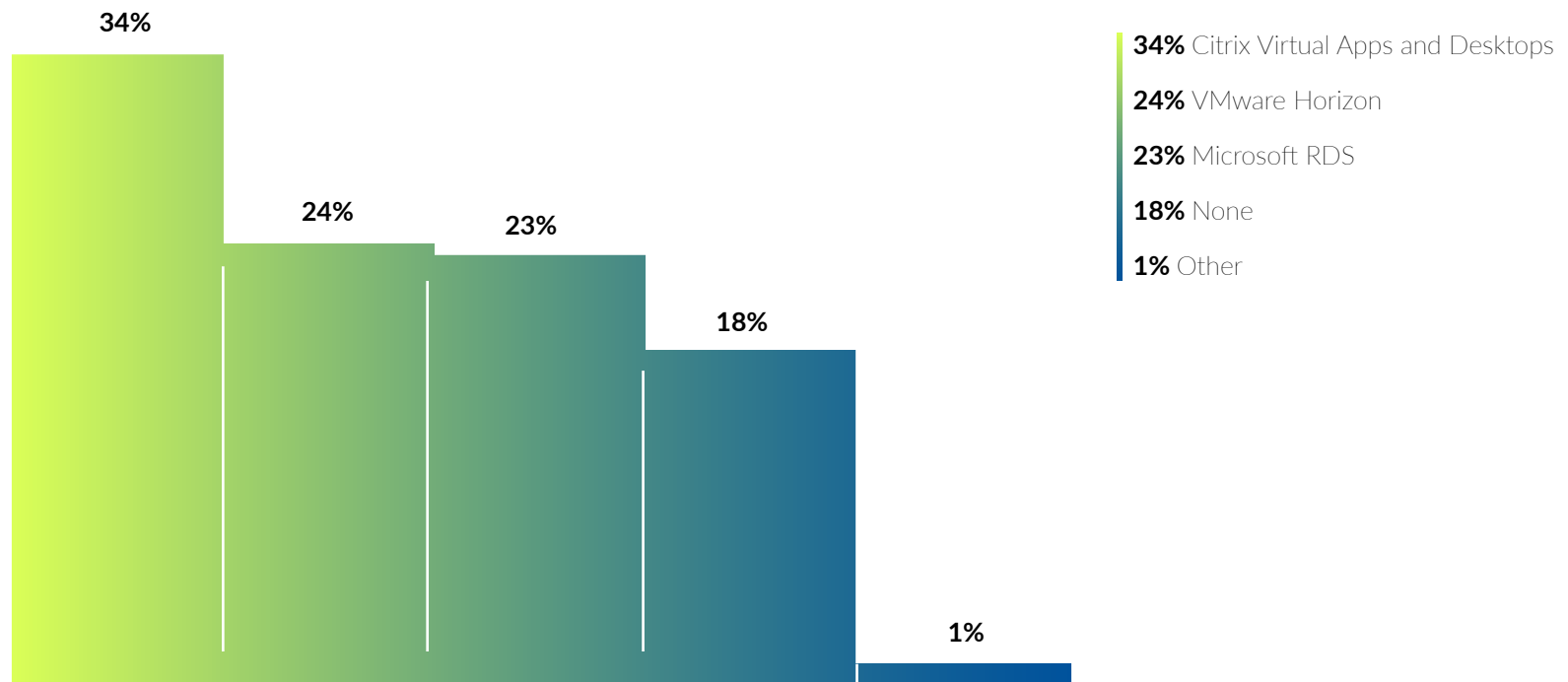
What applications do you manage/support in your current position? (multi-select)

Windows Active Directory is still crucial knowledge for sys admins: just over a quarter of survey respondents manage and/or support AD.



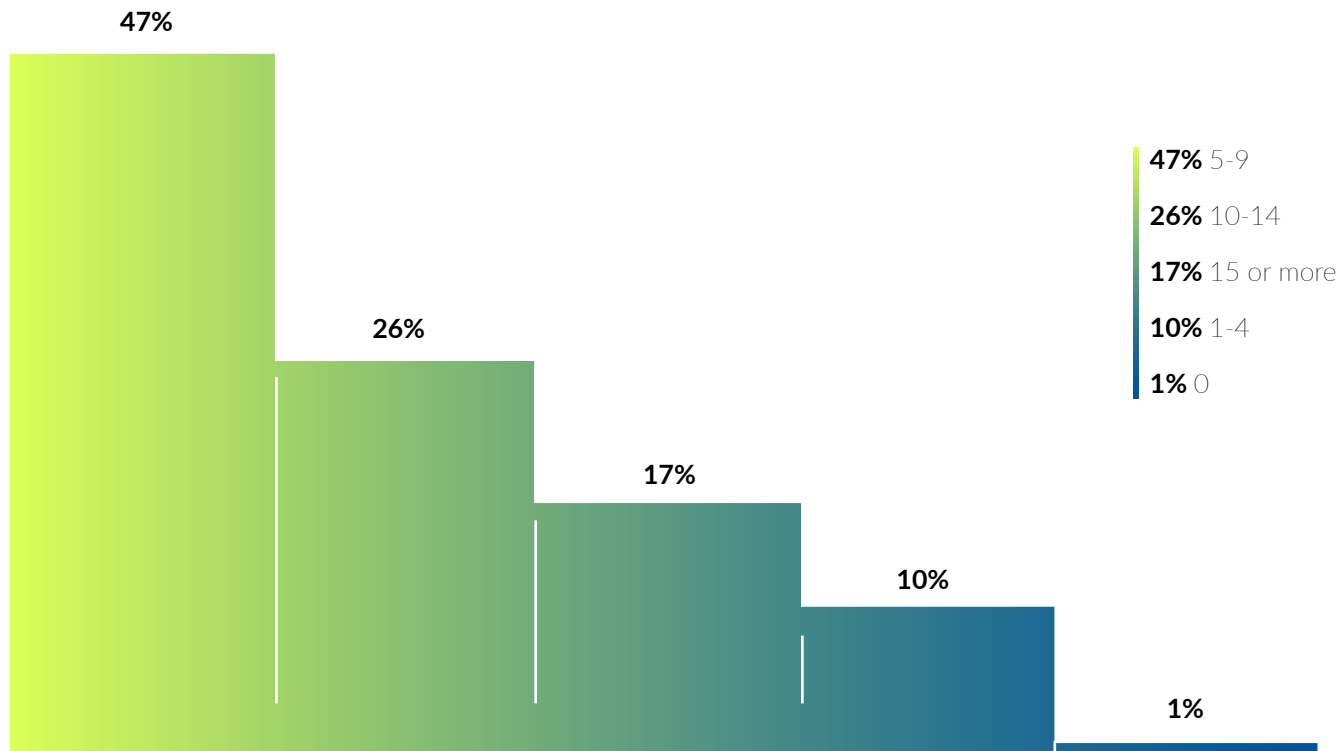
Do you or your company use any end user computing (EUC) virtualization?

80% of system administrators have users using some type of virtual desktops and/or apps.



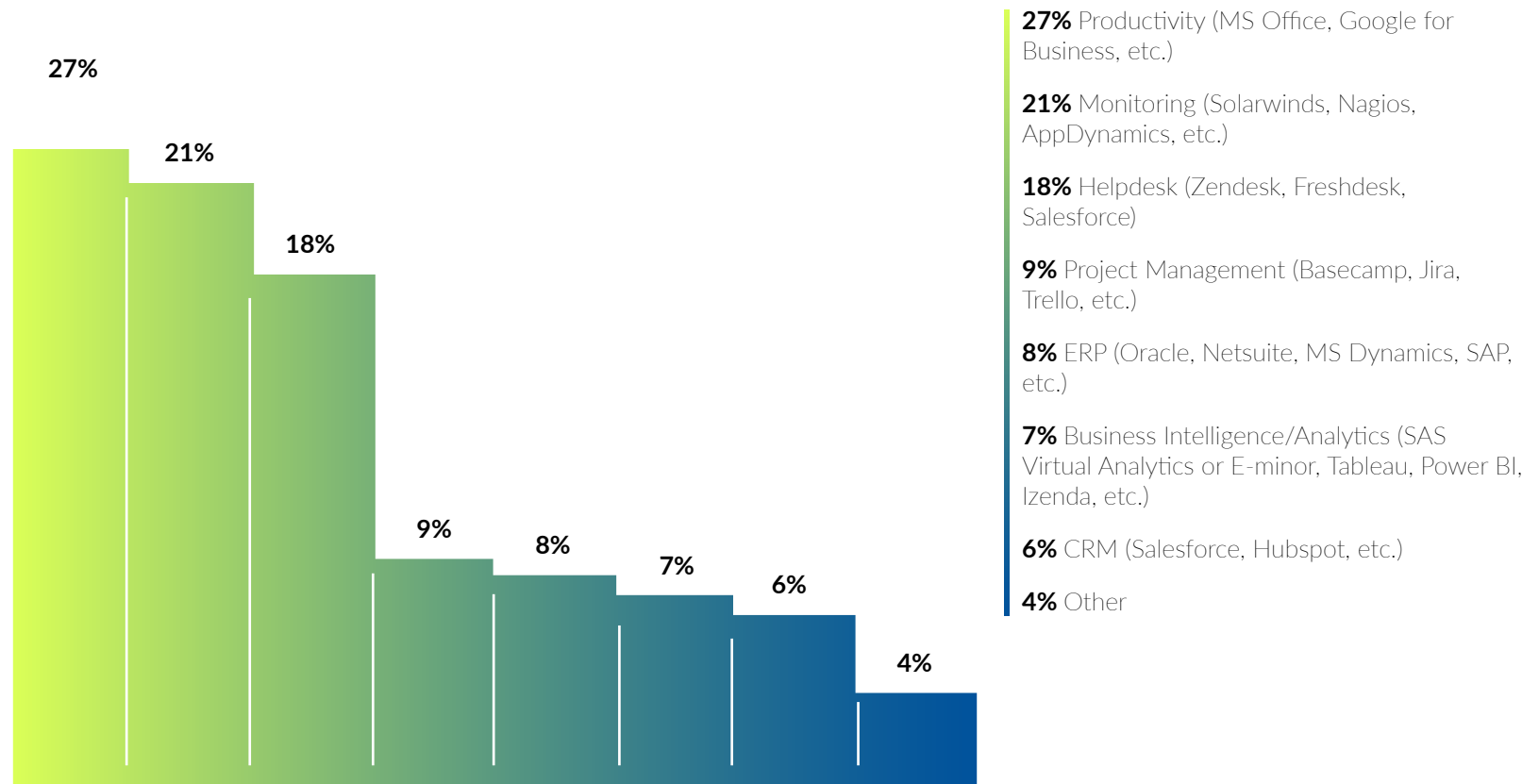
How many applications do you use to do your job on a daily basis?

A good sys admin is comfortable switching between a variety of apps to help get the job done. Almost half of respondents use 5-9 different applications (think email, chat, soft voice client, etc.) on a daily basis.

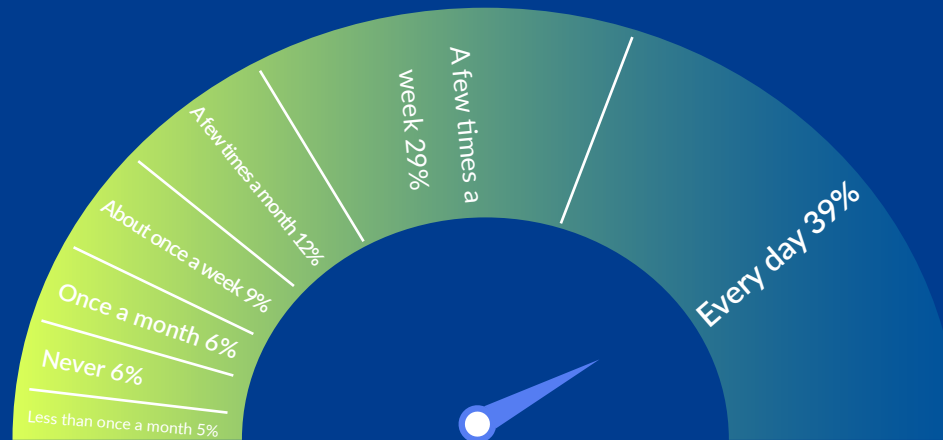


What applications do you use on a daily basis?


Of course, most sys admins spend their days using productivity, system monitoring, and help desk applications.



How often do you use automation or scripting in your current role?



Do you deal with printers or print servers?




61% Yes

Do you deal with scanning and scanners?



40% Yes

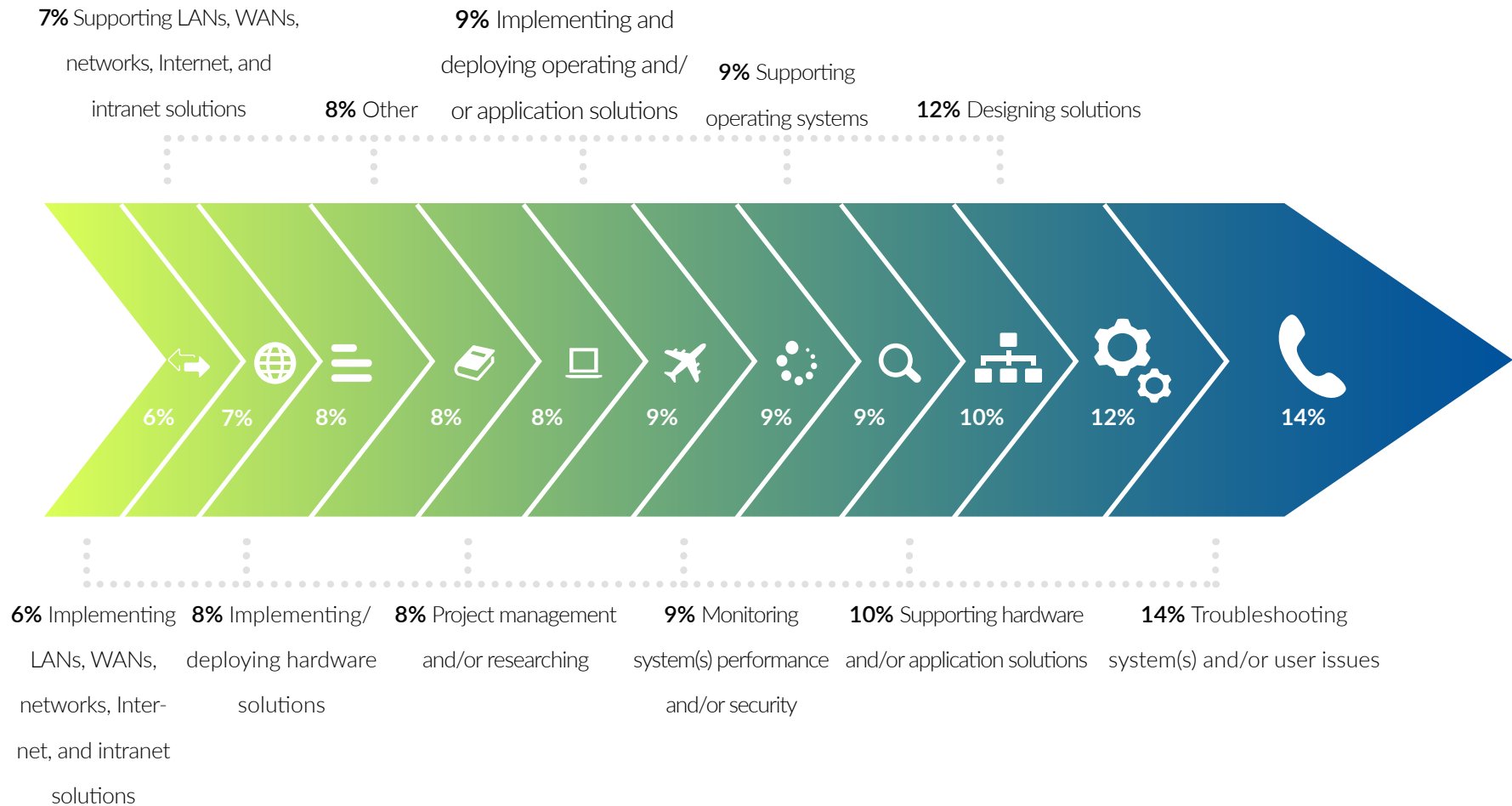
Do you deal with user profiles?



66% Yes

WHAT DOES A TYPICAL WORK WEEK LOOK LIKE FOR A SYS ADMIN?

Our respondents reported that 14% of their time is spent troubleshooting, with solution design trailing right behind at 12%.



Snapshots: Daily Life
Interpersonal



OFFICE LIFE

Interpersonal tasks involve **communication**, **teamwork**, **leadership**, and **conflict management** in an office setting.

Although they might not be written into the job description, these **tasks and daily interruptions** can have huge impacts on getting development and design work done.

But just **how much time** do they actually take away from administration tasks?



Meetings

In a typical work day, how many **meetings per day** do you attend?

1-2 meetings 74%

Most sys admins spend at least an hour a day in meetings. This can add up to 12% or more of each day taken away from other tasks.

3-5 meetings 16%

0 meetings 8%

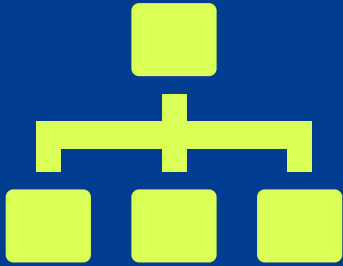
5+ meetings 3%

How often do you have to deal directly with end users?



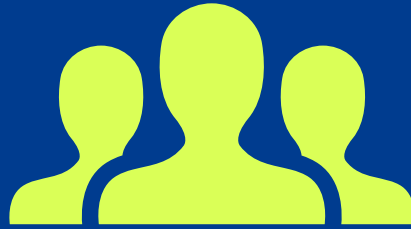
Do you have direct reports?

35% Yes



Are you a team lead?

50% Yes



Do you have any SLAs*?

66% Yes



*Service level agreements

Do you have a consistent maintenance window?

80% Yes

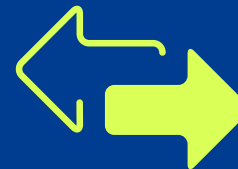


Who do you support?

67% Both internal and external systems and/or users

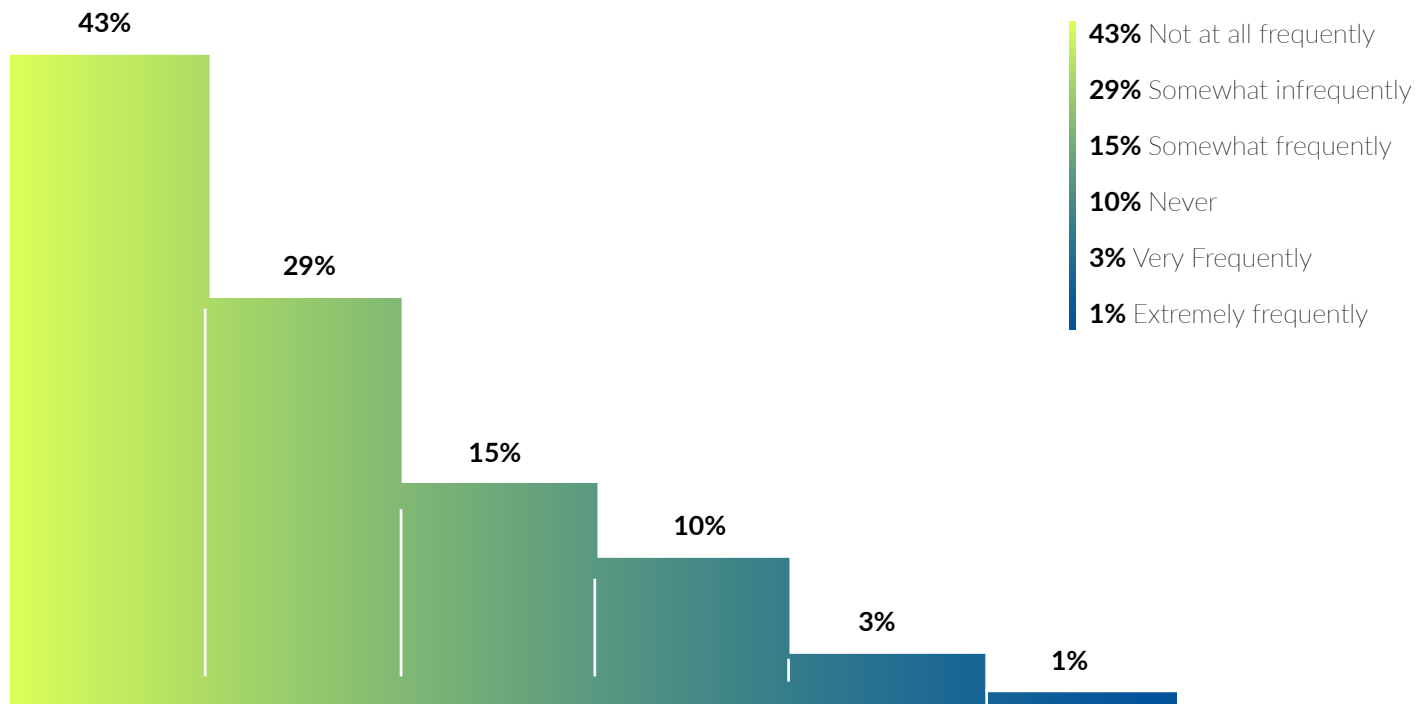
28% Internal systems and/or users only

6% External systems and/or users only



How frequently do you escalate issues to a higher level of support, either internally or externally?

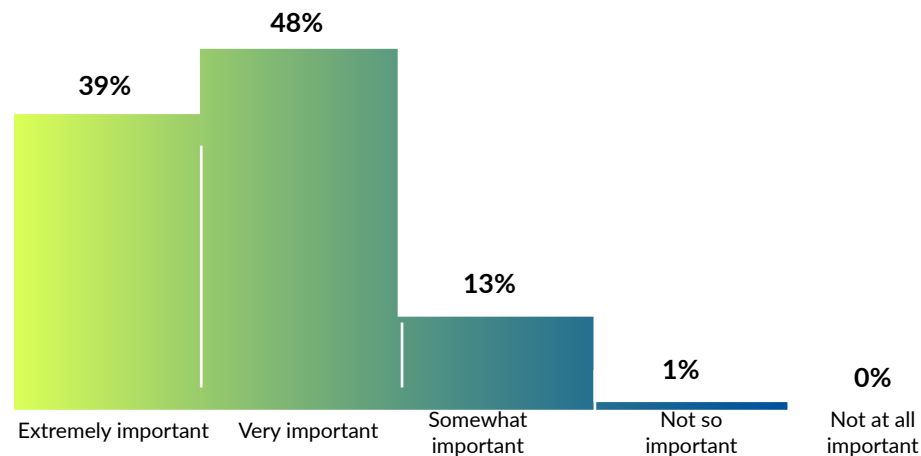
Sys admins are sometimes the only line of defense when it comes to troubleshooting issues. Most of our survey respondents don't often escalate issues to a higher level.



INTERPERSONAL TASKS

In addition to designing and running networks and IT systems, our data shows that most system administrators also have to deal with a lot of interpersonal office-work as well. Between meetings with colleagues or direct reports, handling end user issues, supporting both internal and external systems, and meeting SLAs, time at work surely flies.

Only **39%** of survey respondents believe that their job is “extremely important” to their organization’s success.



6 Insights into Sys Admin **Success Factors**

ADMIN INSIGHTS

By understanding a 'typical day' in the life of a system administrator, we see the common denominators of successful individuals.

We found 6 insights into what makes a successful sys admin – keep in mind that individual results may vary.



INSIGHTS

- 9-to-5? No, thank you!
- A customer-centered approach
- Enjoy variety!
- Be a lifelong learner
- Is “Challenge Accepted” your motto?
- There is no “I” in TEAM

INSIGHT 1

9-TO-5? NO, THANK YOU!

A good personality trait to have in order to be a successful sys admin is the **desire to work a flexible schedule**.

The traditional in-the-office-9-to-5 job doesn't sound appealing to the 7% of survey respondents who said flexibility was the best part about being in this career.

“

Having the ability to do my work from anywhere is the best part about this job.

”

The ability to **work remotely with flexible working hours** is considered a benefit to those who will be happy in this line of work.

INSIGHT 2

A CUSTOMER-CENTERED APPROACH

It may go against conventional stereotypes of the typical IT person who doesn't enjoy being around others, but successful system administrators **truly enjoy helping their customers.**

15% of surveyed respondents point to **making their users happy** as the reason they come into work each day.

“

The best part of being an admin is helping people - the satisfaction from keeping things up and running so people can do their job.

”

The frustrations of dealing with end users do not outweigh the benefits of being a **trusted and helpful resource.**

INSIGHT 3

ENJOY VARIETY!

It is never a dull moment in the life of a system administrator. Enjoying **unpredictability and the excitement** of owning mission-critical systems plays a key role in being a successful sys admin.

16% of respondents write that having something new every day on the job is the best part of being a sys admin.

“

Every day we face new challenges that will keep us engaged and excited about our job.

”

Enjoying variety and **learning something new every day** sounds appealing is one of the marks of a true system administrator.

INSIGHT 4

BE A LIFELONG LEARNER

Tied with solving challenges, 20% of respondents said that **working with technology was the absolute best part** of being a sys admin.

However, that benefit is paired with the requirement to stay on top of industry changes and technology advances.

“

Always keep learning, you HAVE to know your stuff!

”

If playing with technology and getting paid to do it sounds like your dream situation, remember that you have to **be a lifelong learner to stay at the top of your game.**

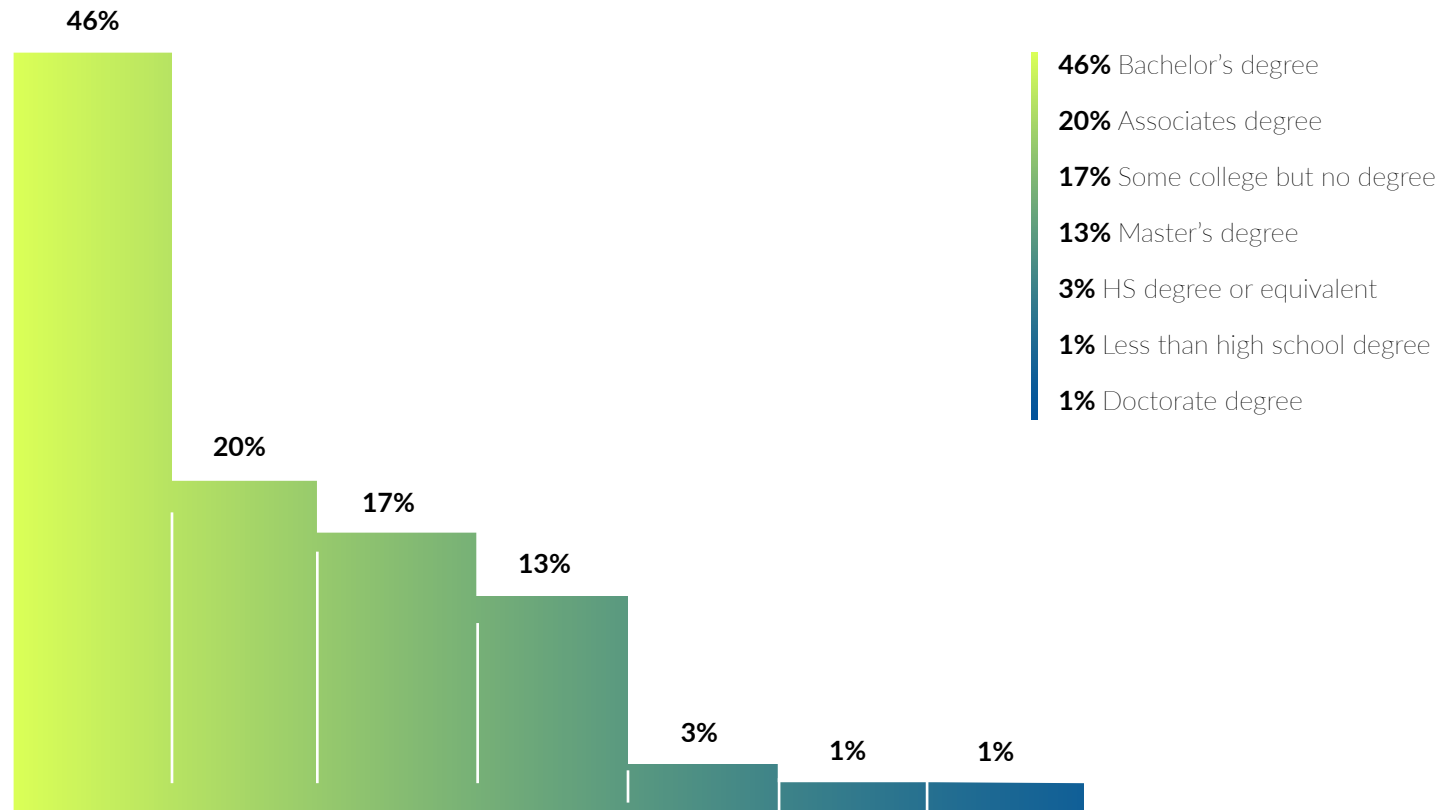
Formal Education?

Some companies require more formal education to consider candidates for a system administrator position. These requirements vary widely. Some businesses require a master's degree whereas others require an associates, bachelors, professional certifications, and/or industry experience – or any combination thereof.

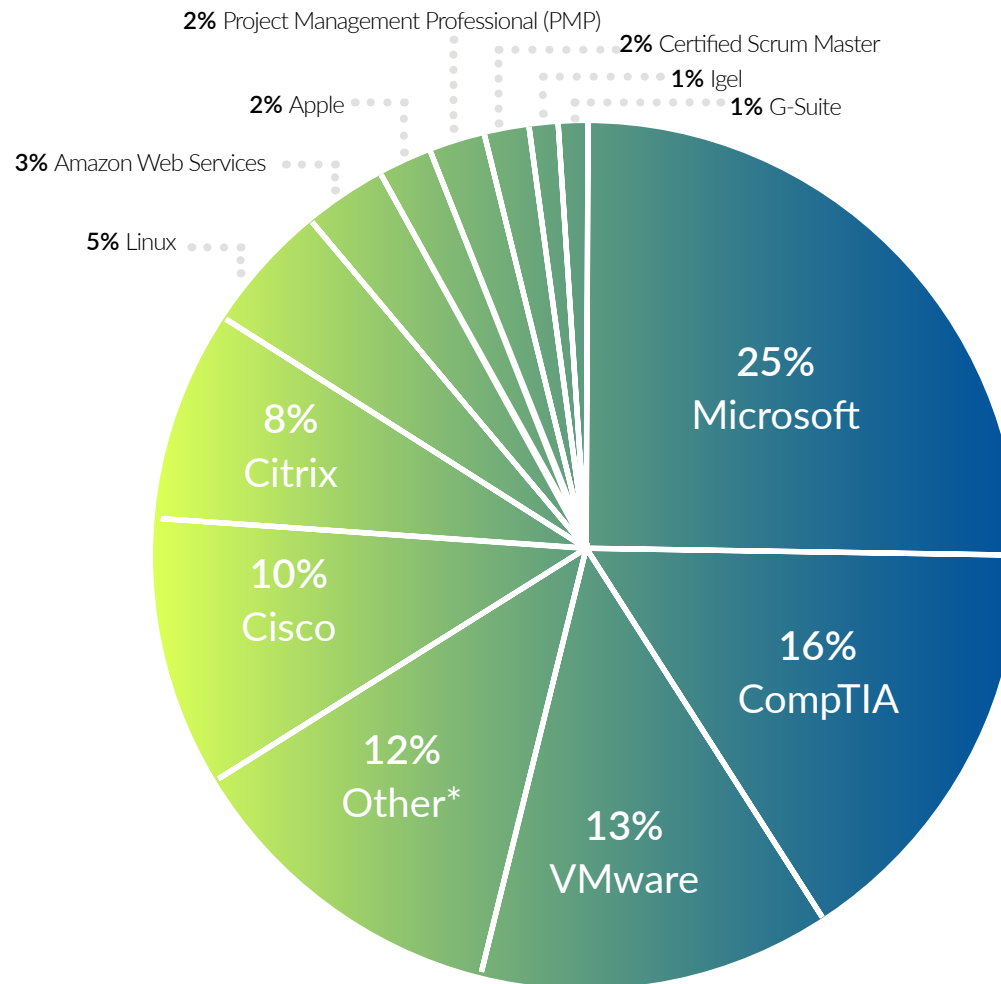
So, what do most system administrators actually have on their resumes? We found that **46% of respondents had a bachelor's degree** as their highest level of education and **70% had job related certificates** (and 12% didn't have any but planned to get some!).



What is your highest level of education?



What job-related certifications do you have?



*Other includes: RedHat, Splunk, Barracuda, CWNA, CISSP, ITIL, among many others.

INSIGHT 5

IS “CHALLENGE ACCEPTED” YOUR MOTTO?

If you enjoy **troubleshooting, putting out fires, or the adrenaline rush** emergencies can provide, this might be the career for you.

20% of survey respondents reported that the best part of being in a system admin role is **solving challenges**. Being an integral part of the company’s IT department doesn’t come without downsides.

“

The best part? The sense of accomplishment after successfully creating a solution to a difficult challenge.

”

Emergencies crop up that must be dealt with urgency and swiftness. Successful system administrators find the prospect of testing brain against machines **exciting** and **invigorating**.

INSIGHT 6

THERE IS NO “I” IN TEAM

Being a contributing member of a team is important to most successful system administrators.

22% of survey respondents stated that being able to make **significant contributions to their team** and/or company was one of the best parts about being a system administrator.

“

Knowing that by having a system that is functioning properly that you helped the company achieve its goals.

”

In order to succeed in this type of role, **it helps to have team mentality** and get fulfillment out of playing a leading role in the successes and wins of your team.

4 Employer Strategies to **Ensure Sys Admin Successes**



COMPANY SUPPORT

We've uncovered some of the main personality traits that make up a successful sys admin.

But these system admins don't work in bubbles. Their success is arguably correlated to the success of their organization as a whole.

So, what can companies do to ensure they're supporting this role effectively?



BETTER WORK ENVIRONMENT
DOCUMENTATION

MONITORING TRAINING

AUTOMATION

MORE STAFF AI

TIME



INSIGHT 1

AUTOMATION & AI

26% of system administrators surveyed said that automation or AI would be the most helpful thing to make their job easier.

Companies should invest in these types of technologies to **reduce the burden on system administrators**, freeing up their time to work on more important things.



- "More automation of day to day tasks."
- "More automation and more monitoring tools."
- "AI to safeguard systems so I can focus on our company's strategic goals."

INSIGHT 2

ENTERPRISE RESOURCES OR TOOL

24% reported that having access to **enterprise resources** (executive buy-in) or **better enterprise solutions**, is the number one thing to make their job easier.

It's important for companies to realize that while they may have the correct staff in the correct positions, these employees **need to be equipped with the correct system tools and management support** in order to work efficiently and achieve success.



I need:

- “Better monitoring solution and system management solution”
- “Having reliable technology that streamlines processes”
- “Executive buy-in”
- “Accessibility to enterprise tools”



INSIGHT 3

MORE STAFF AND MORE TIME

26% of system administrators report that **more time or more staff** would make their job easier and more successful.

Sys admins are responsible for the uptime, maintenance, and design of network systems. In order to do that effectively, there needs to be **enough headcount and lead-time to get the job done correctly.**



I need:

- “Another person for desktop/user support. I do everything!”
- “More funds for project development. More staff to support end users.”
- “To have more time to fine tune environments.”

NICE-TO-HAVES

Additional things were also reported as things that can make life easier for sys admins. Companies can take all these factors into account when determining how best to support this critical system role in their organization.

Monitoring

7% of respondents reported that having better monitoring tools or skills would make their job easier.



Training

6% of respondents said they would love to have better access to training opportunities to advance their skills and knowledge.



Documentation

5% of respondents said what they really need is documentation. (But oddly, no one offered to write it - weird!)



So,
What's Next?

THE CHALLENGE CONTINUES

When asked to describe system administration in one word, people overwhelmingly responded with the word “**challenging**”. As we unpacked that word earlier, this is both a positive and a negative.

Successful system administrators can look at the challenge and see the work for what it is: the ability to work with technology systems, expand your own personal knowledge, be a crucial part of a team, and help others.

To all the jack-of-all-trades, ninjas, firefighters, problem-solvers, and creative multi-taskers, we tip our hat to you. **The world of IT systems would not run without you!**



Describe being a system administrator in one word:

[illegible]

Learn more

To learn more about this study, and about how Tricerat is striving to make the lives of system administrators easier, visit www.tricerat.com or send us a message at simplify@tricerat.com.



Thank you!