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The State of
SYSTEM
Administration

2021

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

System administrators have one of the most important jobs in our workforce. Whatever their job title – **system administrator, network engineer, or architect** – the responsibility of making our IT systems run smoothly falls squarely on them.

For over 25 years, Tricerat has existed to support those doing the critical work of system administration. Our 2021 System Administration survey highlights just how important these employees are to an organization's successes. This report thoroughly looks into survey results to assess **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 70 people responded** to our request for data. **16 countries** from around the globe are represented (most respondents lived in the United States, Canada, and India). Ages ranged from 18-65+, with most around **35-54 years** old.

70+ respondents

16 countries

Most **35-54** years old

88% are below the Director level

51% support both internal and external systems and/or users

36% support internal systems exclusively while 13% support external systems exclusively.

Job title

System/Network Administrator	42%
System/Network Engineer	19%
System/Network Architect	10%
System/Network Manager	17%
Director or above	12%

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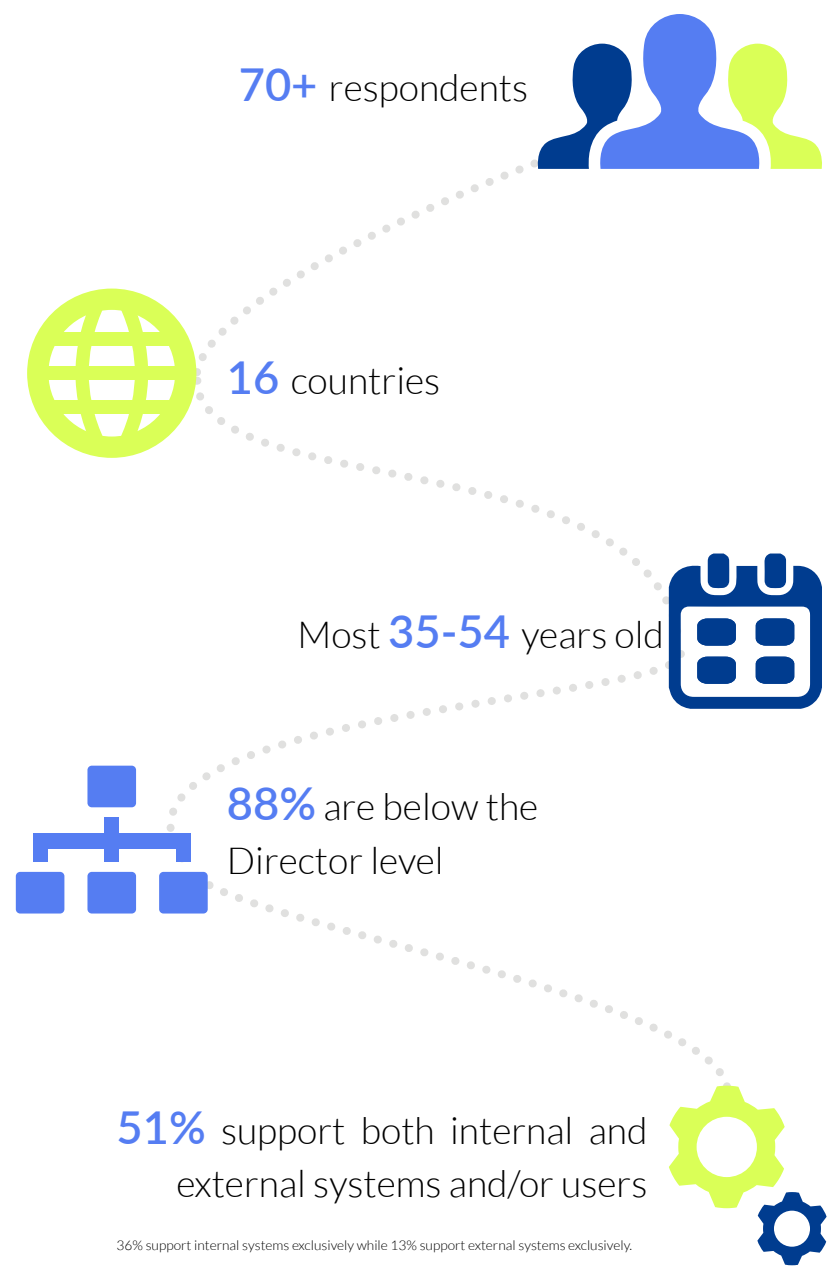
KEY TO KEEPING TECHNOLOGY RUNNING

In today's world, organizations can only go as far as their technology allows them. Who is responsible for managing that technology? **System administrators**. When everything is running smoothly, without any problems, you may not even realize it is thanks to a sys admin. That is because great system administrators work to catch problems before they arise, and stop them when they do.

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

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A-Day-In-The-Life
Snapshots

System administrators often find themselves pressed for the time and tools neceessary to carry out their daily tasks.

With IT budgets set to increase by over **5%** in 2022*, system administrators could see some much needed help. Though this is an increase from 2021, system administrators have been taking on more responsibilites since the remote work boom.

We rely on admins to keep systems operational but what does a typical day in their life actually look like? We've broken it into two sections:

TECHNICAL

- What systems and applications are you using?

- 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?

- How much time do you spend in meetings?

- Do you have to worry about things like SLAs or documentation?

* (https://www.gartner.com/en/newsroom/press-releases/2022-01-18-gartner-forecasts-worldwide-it-spending-to-grow-five-point-1-percent-in-2022)
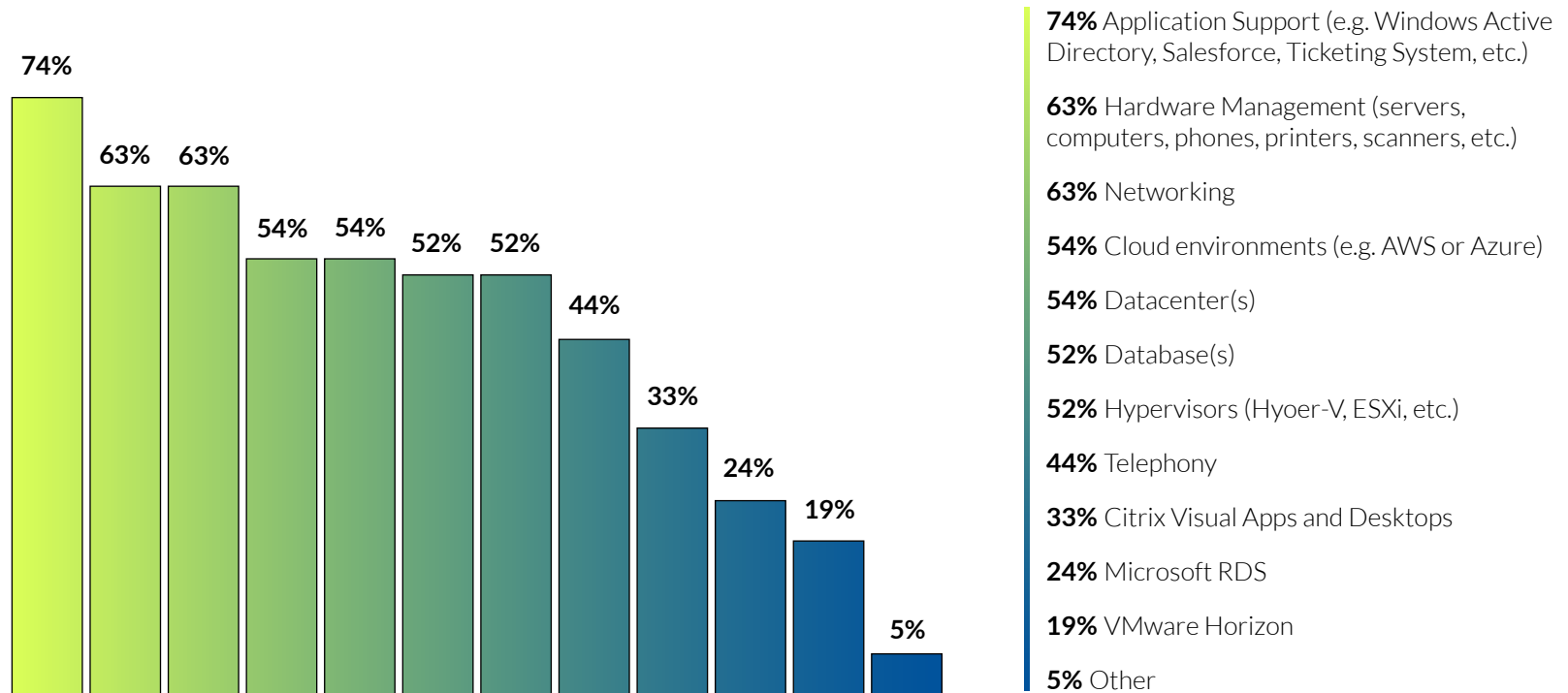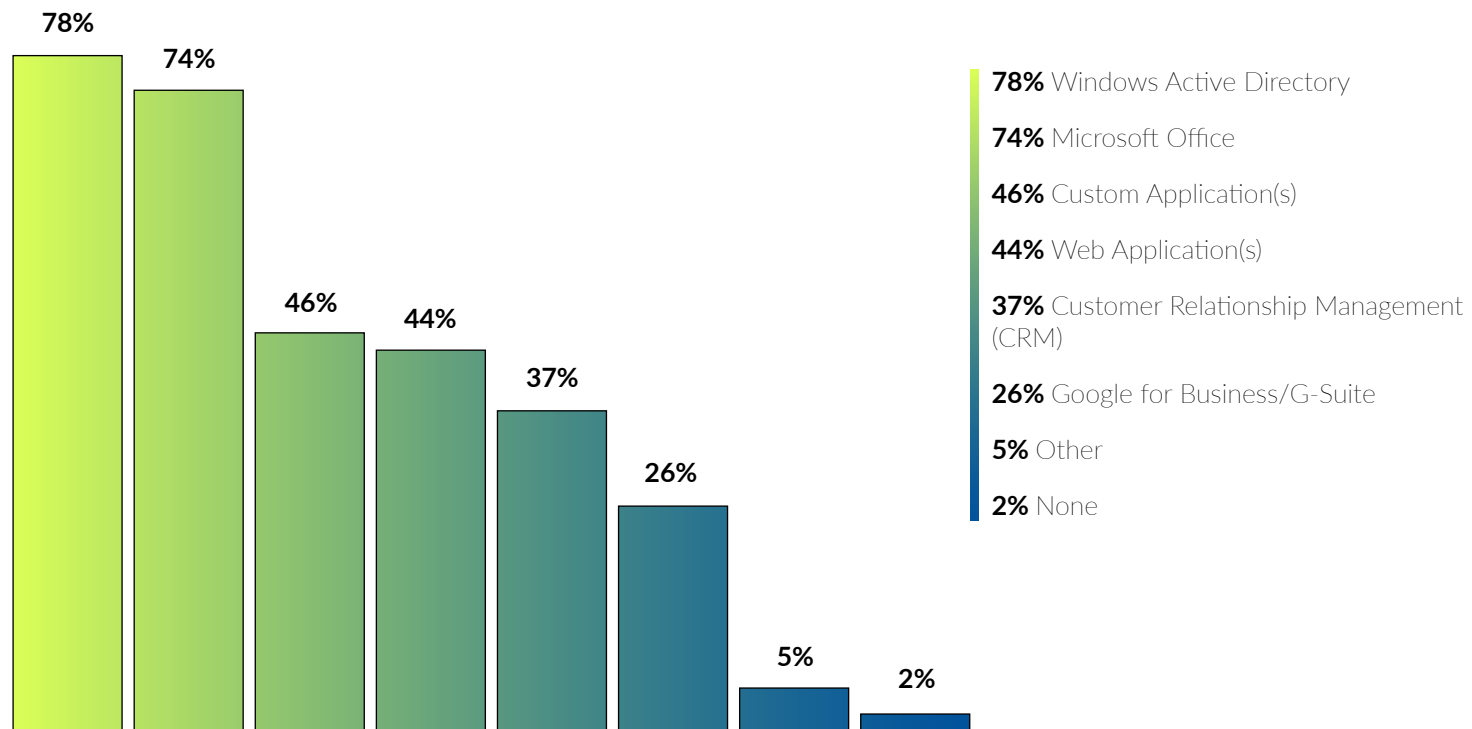
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Snapshots: Daily Life
Technical

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

Over half (63%) of system administrators have to deal with hardware management - that's in addition to system and network responsibilities.

Chart data:

- 74%
- 63%
- 63%
- 54%
- 54%
- 52%
- 52%
- 44%
- 33%
- 24%
- 19%
- 5%

Legend:

74% Application Support (e.g. Windows Active Directory, Salesforce, Ticketing System, etc.)

63% Hardware Management (servers, computers, phones, printers, scanners, etc.)

63% Networking

54% Cloud environments (e.g. AWS or Azure)

54% Datacenter(s)

52% Database(s)

52% Hypervisors (Hyoer-V, ESXi, etc.)

44% Telephony

33% Citrix Visual Apps and Desktops

24% Microsoft RDS

**19%** VMware Horizon

5% Other

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

Windows Active Directory and Microsoft Office are the most common applications sys admins are supporting: Over half of survey respondents (78% and 74% respectively) manage and/or support these apps.

78% Windows Active Directory

74% Microsoft Office

46% Custom Application(s)

44% Web Application(s)

37% Customer Relationship Management (CRM)

26% Google for Business/G-Suite

5% Other

2% None

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

72% of system administrators have users using some type of virtual desktops and/or apps.
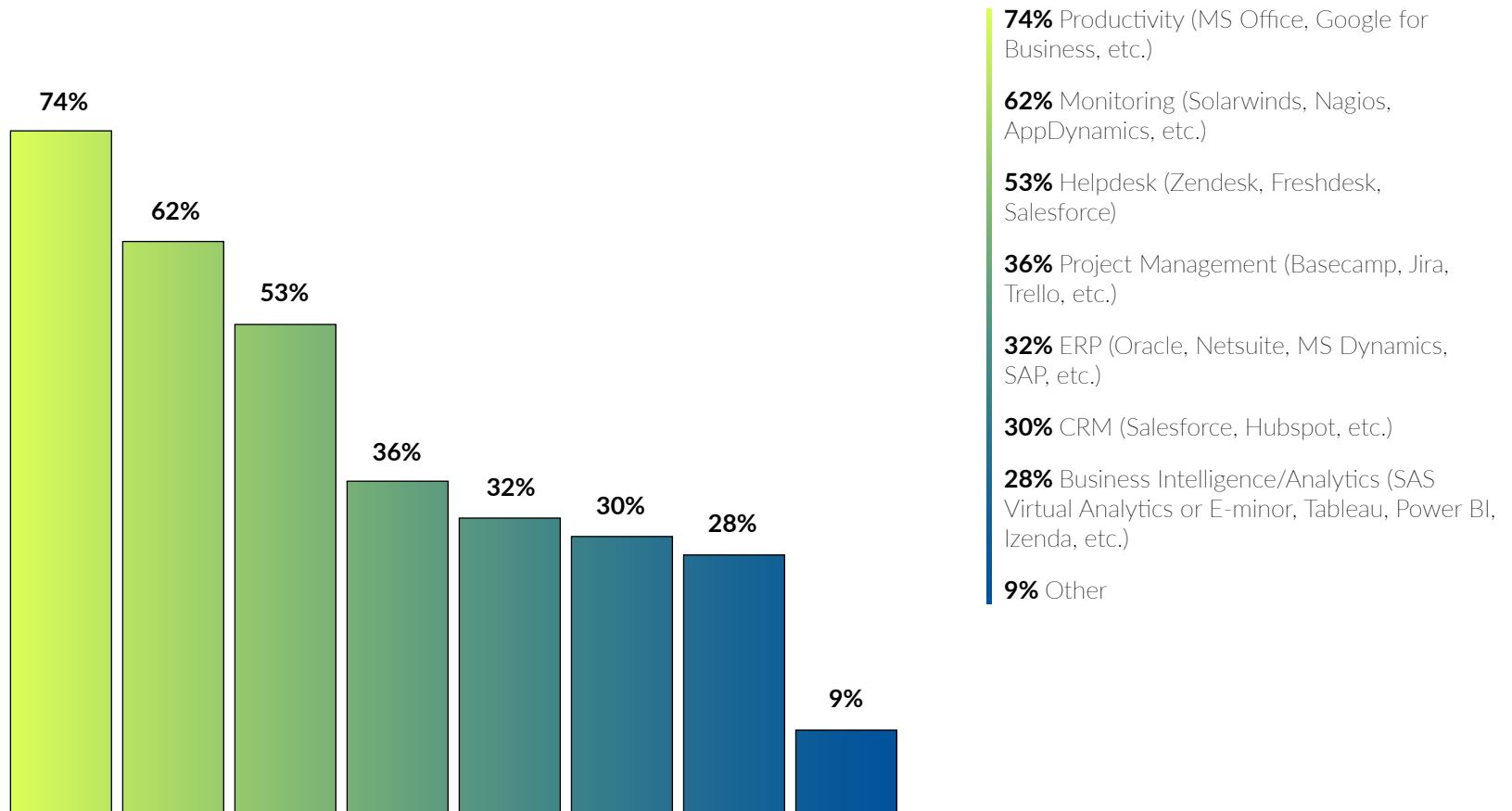

39% Citirx Virtual Apps and Desktops

35% Microsoft RDS

32% VMware Horizon

28% None

2% Cameyo
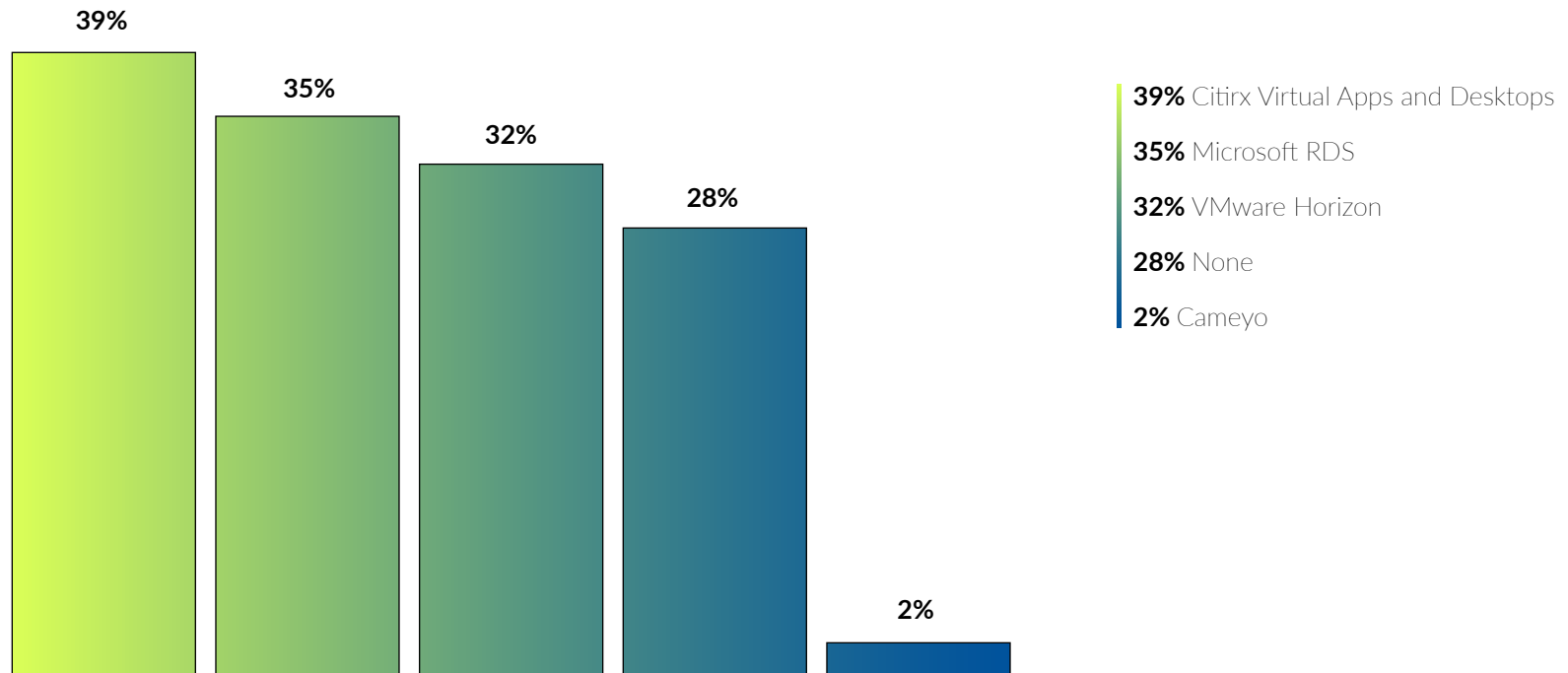
How many applications do you use to do your job on a daily basis?

A good sys admin is comfortable switching between a variety of apps to help get the job done. Over 25% use 15+ different applications (think email, chat, soft voice client, etc.) on a daily basis.
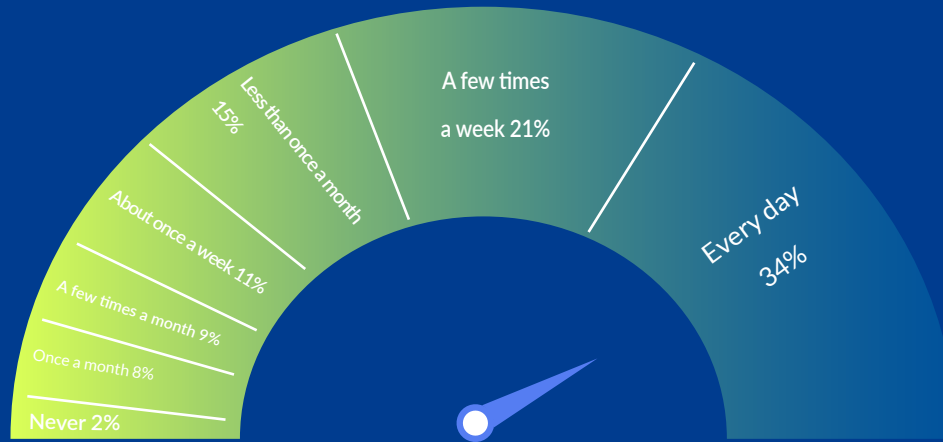

40% 5-9

28% 15 or more

21% 10-14

11% 1-4

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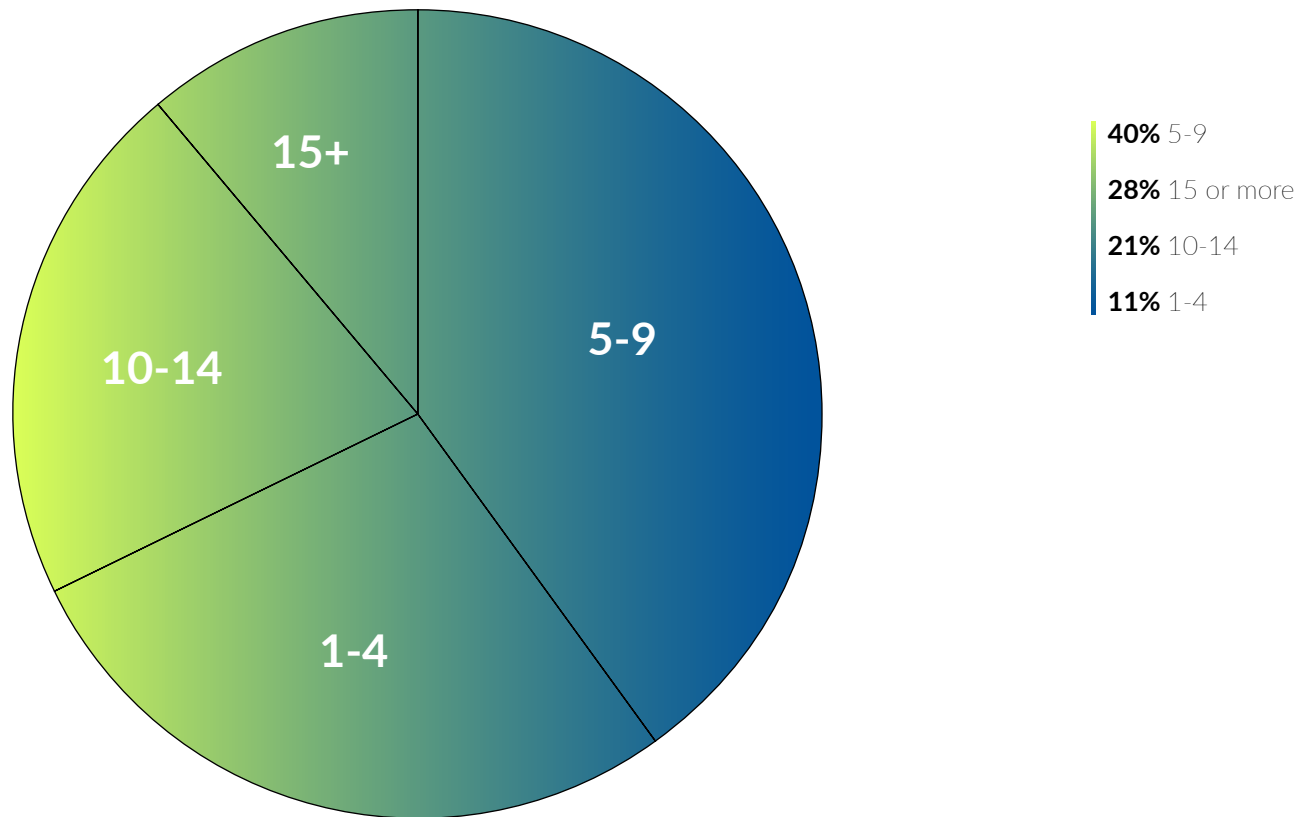
What applications do you use on a daily basis? (multi-select)

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

74% Productivity (MS Office, Google for Business, etc.)

62% Monitoring (Solarwinds, Nagios, AppDynamics, etc.)

53% Helpdesk (Zendesk, Freshdesk, Salesforce)

36% Project Management (Basecamp, Jira, Trello, etc.)

32% ERP (Oracle, Netsuite, MS Dynamics, SAP, etc.)

30% CRM (Salesforce, Hubspot, etc.)

28% Business Intelligence/Analytics (SAS Virtual Analytics or E-minor, Tableau, Power BI, Izenda, etc.)

9% Other

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

A few times a week 21%

Less than once a month 15%

About once a week 11%

A few times a month 9%

Once a month 8%

Never 2%

Every day 34%

Do you deal with printers or print servers?

72% Yes

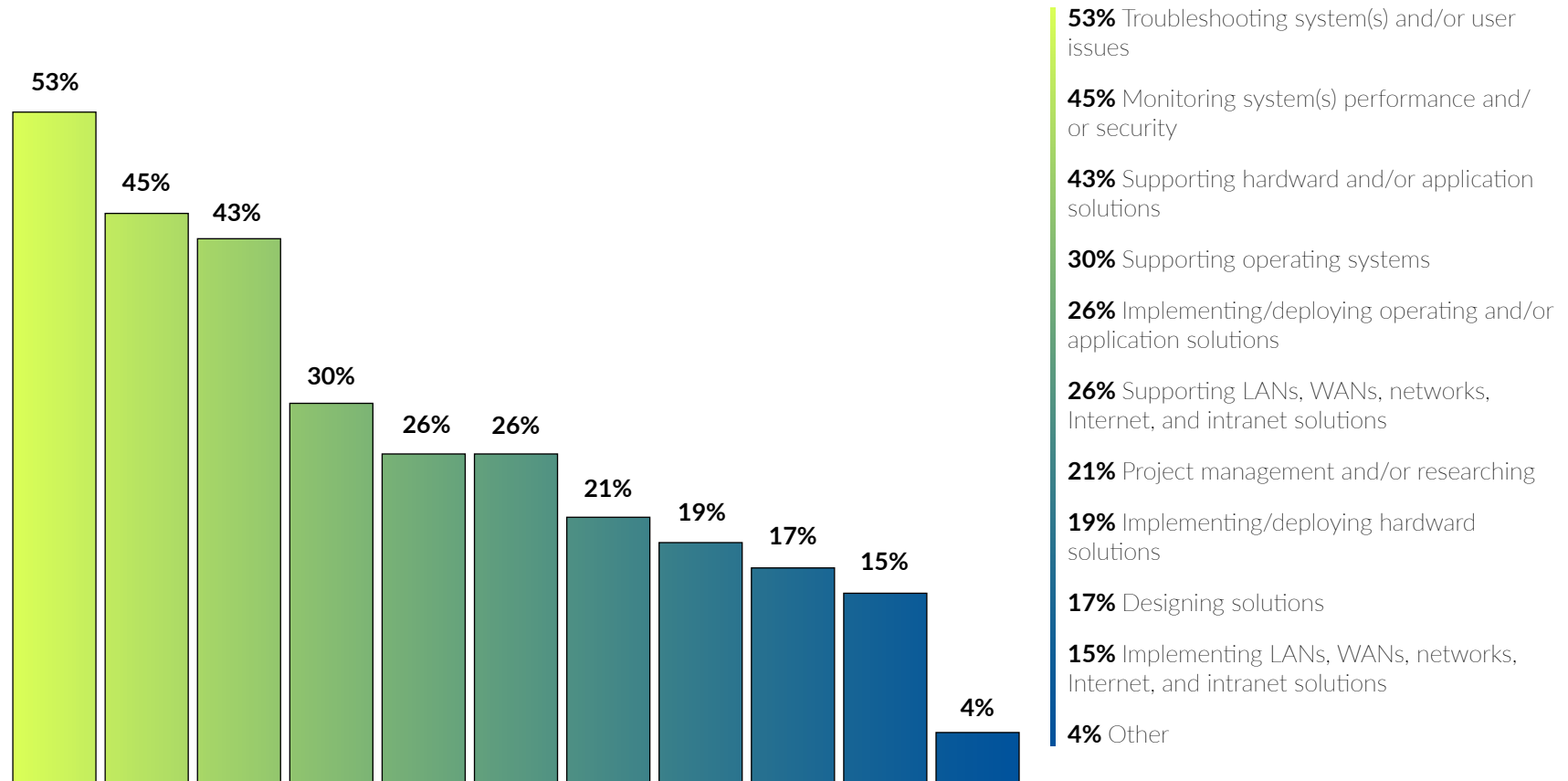**Do you deal with scanning and scanners?**

58% Yes

If you manage printers and scanners, do you also deal with user profiles?

89% Yes

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What does a typical work week look like for a sys admin?

To sum it up, **all over the place**. Admins reported the top 3 things that take up the most of their time was

troubleshooting systems, monitoring systems, and supporting harward and applications.

53% Troubleshooting system(s) and/or user issues

45% Monitoring system(s) performance and/or security

43% Supporting hardward and/or application solutions

30% Supporting operating systems

26% Implementing/deploying operating and/or application solutions

26% Supporting LANs, WANs, networks, Internet, and intranet solutions

21% Project management and/or researching

19% Implementing/deploying hardware solutions

17% Designing solutions

15% Implementing LANs, WANs, networks, Internet, and intranet solutions

4% Other

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What was you biggest IT challenge this past year?

PRINTNIGHTMARE

PRINTING

MORE STAFF

HYBRID ENVIRONMENT

REMOTE WORK

DATA CENTER MIGRATION

SECURITY

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Snapshots: Daily Life
Interpersonal

OFFICE LIFE

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

Although these are generally not written into the job description, these tasks and daily interruptions do have an impact on the time sys admins are able to allocate to their responsibilities.

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

Meetings

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

1-2 meetings 58%

3-5 meetings 32%

5+ meetings 8%

0 meetings 2%

40% of sys admins spend over an hour a day in meetings.

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

42%
Every day

7%
Once a month

32%
A few times a week

6%
Once a week

13%
A few times a month

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Do you have a consistent maintenance window?

74% Yes

Do you have any SLAs*?

74% Yes

*Service level agreements

Who do you support?

51% Both internal and external systems and/or users

36% Internal systems and/or users only

13% External systems and/or users only

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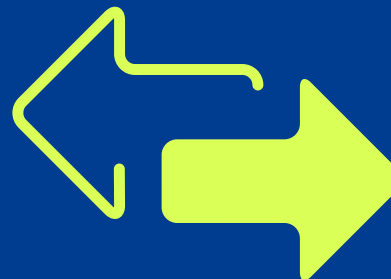
INTERPERSONAL TASKS

In addition to designing and running networks and managing 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, handling end user issues, supporting both internal and external systems, and meeting SLAs, time at work can be a total blur. System administrators are depended upon frequently and **76%** of respondents feel important to their organization's success.

36% of survey respondents believe that their job is "extremely important" to their organization's success.

Extremely important	Very important	Somewhat important	Not so important	Not at all important
36%	40%	21%	2%	2%

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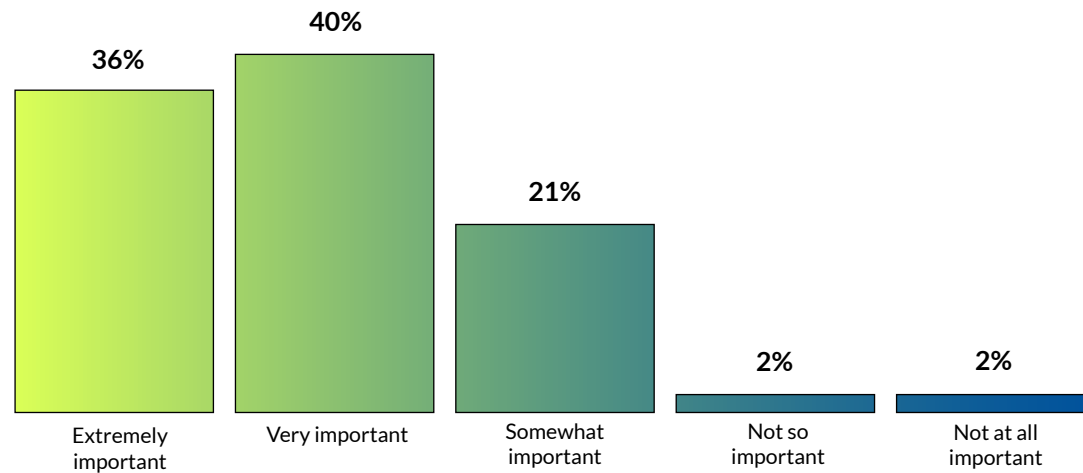
4 Insights into Sys Admin
Success Factors

ADMIN INSIGHTS

By understanding what system administrators deal with on a daily basis, we see what makes one successful in the field of system administration.

We found 4 insights into what generally makes a successful sys admin.

INSIGHTS

- Being flexibile
- Helping users
- Being valued
- Always learning

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🔑 INSIGHT 1

BEING FLEXIBILE

Being willing to work a **flexible schedule** is an important personality trait for sys admins as they have to balance many responsibilities.

The traditional 9-to-5 job doesn't sound appealing to 86% of survey respondents who said they would be equally of more efficient with a shortened workweek.

> " We have done 4 day workweeks
>
> in the Summer
>
> without any problems. "

Working flexible working hours is considered a benefit to those who want to succeed in the world of system administration.

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🔑 INSIGHT 2

HELPING USERS

Successful system administrators **truly enjoy and embrace helping their users** despite what you may think.

50% of surveyed respondents said that **end user satisfaction** was a major factor when evaluating new tools and software.

> *Helping remote users through their issues has been very rewarding.*

Though working with end-users can be frustrating, most admins enjoy being a **resource users can depend on** for when problems arise.

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🔑 INSIGHT 3

BEING VALUED

System administrators are in the weeds of their organization's technology. **Valuing their input and knowledge** plays a key role in setting a company up for success.

90% of system administrators said that they have some influence to a heavy influence in **making tech decisions** for their organization.

> "I can directly influence organizational efficiency and productivity."

Enjoying variety and **learning something new every day** are marks of a successful system administrator.

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🔑 INSIGHT 4

ALWAYS LEARNING

With the pace at which tetchnology evolves, most system adminstrators find it necessary to constantly learn and grow to succeed in their role.

55% of system administrators plan on adding at least **1 certification** in the next 12 months according to respondents.

"

Continued education for admins and end users would be the most helpful.

"

Being a lifelong learning is a great character trait to have when your career depends on **understanding the latest technology**.
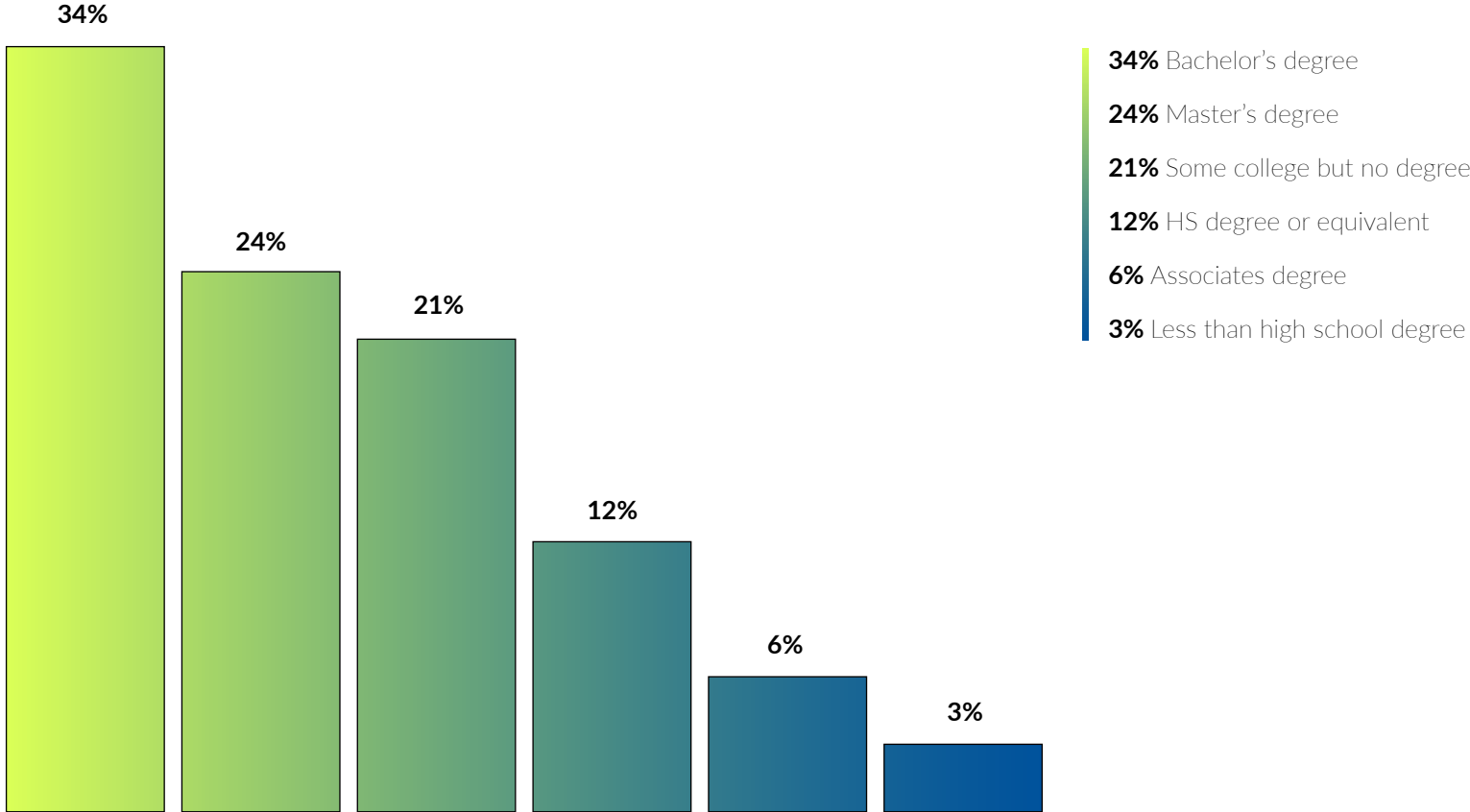
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Formal Education?

Most 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 associate's, bachelor's, professional certifications, and/or industry experience – or any combination thereof.
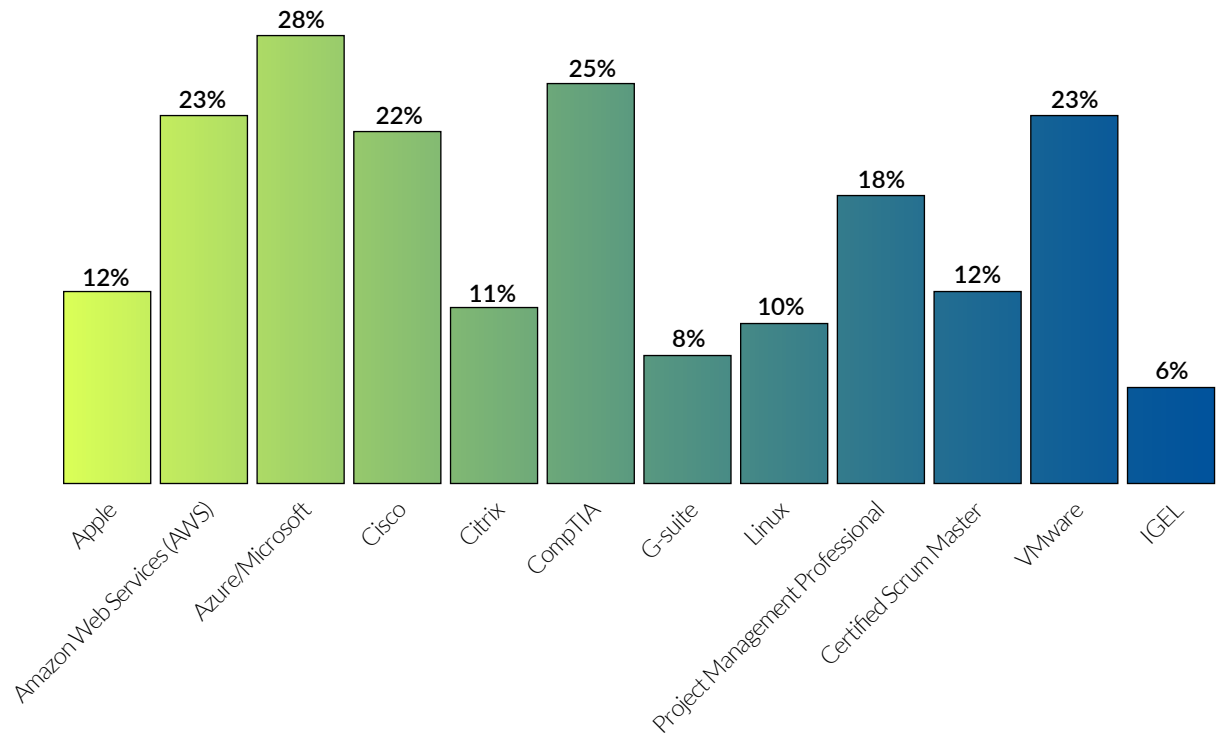
So, what do most system administrators actually have on their resumes? We found that **34% of respondents had a bachelor's degree** as their highest level of education and **84% had job related certificates**.

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What is your highest level of education?

34% Bachelor's degree

24% Master's degree

21% Some college but no degree

12% HS degree or equivalent

6% Associates degree

3% Less than high school degree

What job-related certifications do you have? (multi-select)

Certification	Percentage
Apple	12%
Amazon Web Services (AWS)	23%
Azure/Microsoft	28%
Cisco	22%
Citrix	11%
CompTIA	25%
G-suite	8%
Linux	10%
Project Management Professional	18%
Certified Scrum Master	12%
VMware	23%
IGEL	6%

4 Employer Strategies to
Ensure Sys Admin Successes

👍 COMPANY SUPPORT

We have reviewed some of the main qualities that make up a successful system administrator for most organizations.

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

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

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📣 INSIGHT 1

ENTERPRISE RESOURCES OR TOOLS

22% reported that having access to **enterprise resources** or **better enterprise solutions**, is the number one thing to make their job easier.

Companies need to realize that while they may have the proper 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:

- "A proper management and monitoring tool"

- "Easy-to-use tools"

- "Having the right toolset"

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📢 INSIGHT 2

AUTOMATION

17% of system administrators surveyed said that automation would be the most helpful thing to make their job easier.

Companies should invest in this type of technology to **reduce the burden on system administrators**, freeing up their time to work on more important things and increase efficiency.

I need:

- "Improved automation"
- "More automation of manual tasks"
- "As much automation as possible"

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📢 INSIGHT 3

MORE TRAINING AND EDUCATION

12% of system administrators report that **more training and education** would make their job easier and more successful.

Sys admins are responsible for keeping the network systems online and operational. In order to do so efficiently, they need to have **appropriate training on the latest developments in their environment.**

I need:

- "More training for all staff including end users"

- "More professional development"

- "More knowledge"

📢 NICE-TO-HAVES

Additional suggestions were also reported as ways to 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.

Director Support
7% of respondents reported that having improved Director level support would make their job easier.

More Staff
10% of respondents said that having more staff or time would be the best way to improve their day to day operations.

More Time
2% of respondents said what they really need is more timie or runway to get projects finished.

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So,
What's Next?

HELPFUL IT HEROES KEEP THINGS RUNNING

When asked how their coworkers would describe them, system administrators responded most with **"helpful"** and **"excellent"**. System Admins know that a lot rests on their shoulders and they pride themselves in making sure that all of a businesses' systems are ready to go each day.

Successful system administrators come in all sizes but have a few key traits in common. They have the ability to work with technology systems, seek to expand their personal knowledge, and seize the opportunity to help others.

To all the technological fixers keeping organizations going, we tip our hat to you. **Thank you for keeping IT systems running seamlessly!**

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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!

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