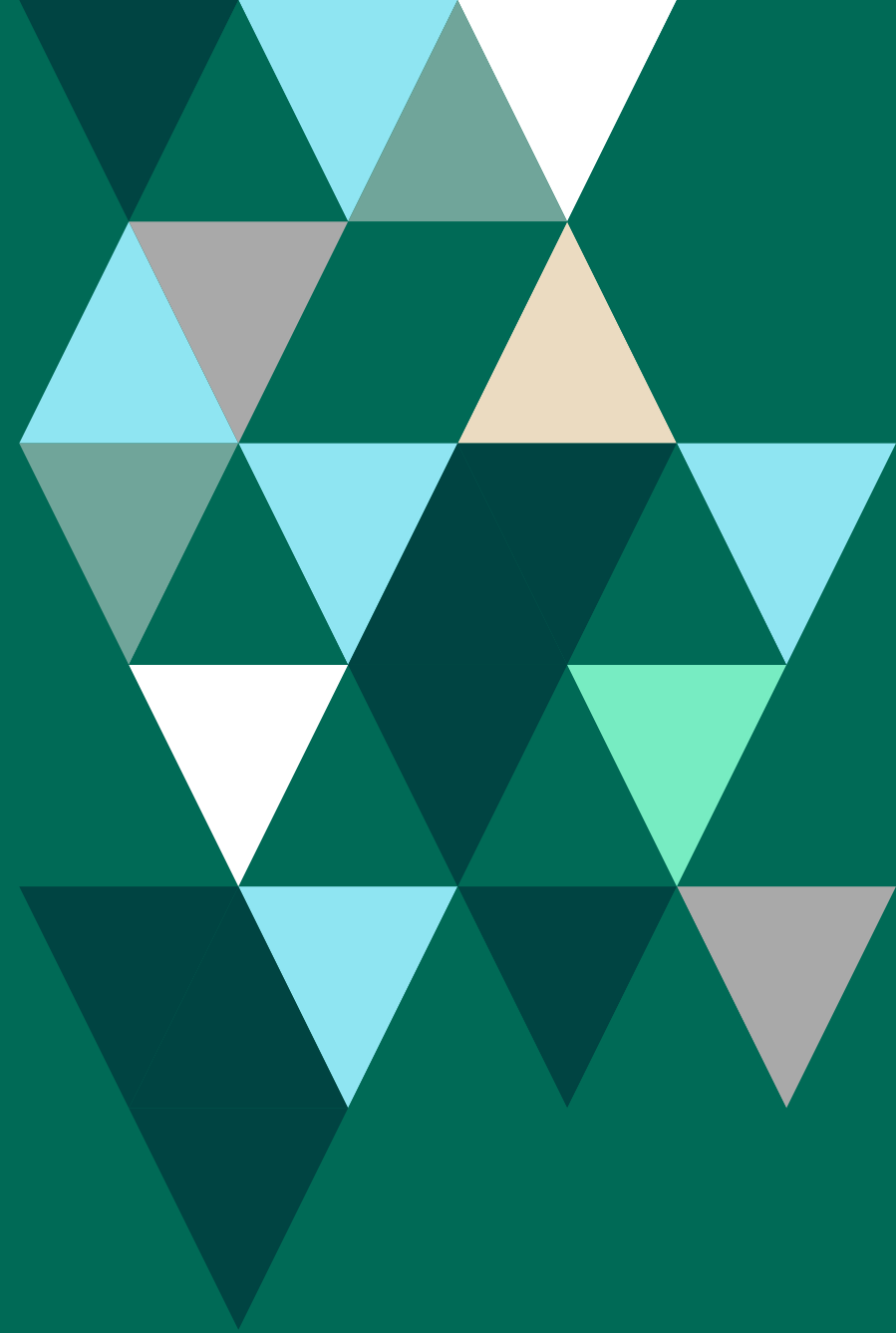


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# **2023 IBM i Marketplace Survey Results**





# 2023 IBM i Marketplace Survey Results



## ABOUT THE AUTHOR

Tom Huntington is an IBM Power Champion and Executive Vice President of Technical Solutions at Fortra. Tom has more than 30 years of experience with IBM i technology. He visits customers around the globe to discuss automation, backups, security, cloud, business intelligence, development practices, high availability, quality, and family life. Tom works with customers from all industries, from Fortune 100 companies to small businesses. Whether your data center could span two football fields, hangs out in the cloud, or is as small as a closet, Tom's passion is helping customers adopt computer technologies to solve issues and improve productivity.



2023 marks the ninth edition of the IBM i Marketplace Survey Results. Each year, Fortra (formerly known as HelpSystems) captures data on how businesses use the IBM i platform and the IT and cybersecurity initiatives it supports.

Over the years, this survey has become a true industry benchmark, revealing to readers the trends that are shaping and driving the market and providing insight into what the future may bring for this technology.

As the challenges of the past years continue to bring more change to organizations across the globe, this survey always encourages conversation, debate, and discussion about IBM i. The new work norm looks very different than it was just a few years ago. Distributed workforces supported by evolving digital technologies and tools have transformed both the way businesses operate and the threat landscape. Cybersecurity is a top priority for all executive teams no matter which industry the business is in.

Despite ongoing challenges, almost 300 IBM i users from all over the world completed this year's survey, which revealed a promising outlook for Power10, a growing RDi user base, and a continued concern about cybersecurity. Along with cybersecurity, the most pertinent topics in the IBM i community include modernization, high availability and disaster recovery, IBM i skills, and all things cloud such as data growth. There were many other data points that we hope you will find interesting as you plan your 2023 projects.

As always, I want to thank everyone who participated in the research and who helped bring it all together. Your help and enthusiasm are always appreciated. I would also like to thank our team here at Fortra who puts so much time and energy into publishing these results.

Thank you,

**Tom Huntington**

Executive Vice President of Technical Solutions, Fortra



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# Survey Highlights

## Unsurprisingly, cybersecurity continues to be on everyone's mind.

Perhaps the most consistent data point in the IBM i Marketplace Survey Results is the ongoing cybersecurity threat. Over the past seven years, cybersecurity has been the main concern for people planning their IT environment, and this year was no exception. In fact, we noticed an increase since last year's results, with 68% of respondents saying this was their number one concern, up from 62% last year. And although organizations prioritizing security seem to be implementing multiple solutions, it is still alarming that, on average, 27% of respondents do not plan to implement any of the surveyed cybersecurity solutions. If your organization has concerns over IBM i cybersecurity skills, [managed security services](#) could be a way of filling in any holes.

## Businesses have begun their journey to Power10.

Organizations are beginning to adopt the IBM Power E1080 scale-up servers running the Power10 processor which was launched in September 2021. This year's findings indicate that 16% of the respondents have already migrated or are in the process of upgrading to using Power10, while another 74% are strongly considering it. This is no surprise, as we know there are tangible benefits to new hardware around security, virtualization, and high availability. The findings also demonstrate that older hardware (Power8 and older) is gradually phasing out. Make sure to plan your upgrades accordingly, so you aren't left unsupported.

## Organizations reward the reliability of IBM i.

It's no surprise that many businesses rely on IBM i as their primary business solution, given the platform's reputation for reliability and stability. 70% of respondents use IBM i to run more than half of their core business applications. This is a testament to the reliability of the IBM i system. Only 4% of respondents expect to have migrated all apps off IBM i within the next two years.

## Securing remote operations is a top concern for most organizations.

Business as usual continues to look different, and that means supporting remote operations is essential. For many, this means a new set of challenges, which most notably include security concerns with remote

access at 51% and supporting employees working from home at 36%. Many organizations are also making changes to better support remote operations such as automating manual processes (34%), implementing layered security around VPN access (32%), and leveraging IBM i Access Client Solutions (31%). One third of organizations have not made any changes due to a shift in remote working. This stat is consistent from 2022 and we can assume these organizations were already set up to handle a remote workforce.

## Increased adoption of Rational Developer (RDi) to facilitate teamwork in modern workplace.

One of the most prominent IBM i productivity tools is Rational Developer for i (RDi). For this reason, it gives us hope that this year's survey results also show a sizable uptick in RDi adoption. In a rise from 22% in 2022, 25% of respondents now claim that all of their developers make use of RDi. RDi facilitates communication and teamwork, both of which are crucial in the modern, telecommuting workplace. If you're having trouble figuring out how to implement RDi but want some guidance, these [six tutorials](#) might help.

## RPG delivers to its promises.

The amount of development that takes place on IBM i is always a particular area of interest in our research. Once again, RPG is the most widely used language for new development on IBM i (93%), but people are clearly using multiple languages (SQL, CLP, open languages, etc.). This trend is fueled by the fact that modern RPG looks and acts like other languages, which also makes it easier to teach. This is promising for the future of IBM i and can help to close the IBM i skills gap.

## Trust and satisfaction on IBM i reach an all-time high record.

95% of respondents this year believe their IBM i server gives them better ROI than other servers, the highest figure ever. 20% of respondents will increase their IBM i footprint in 2022, and 37% of users will continue to run their IBM i environment as is. In addition, another 12% say will stay with IBM i, but they will move to the cloud. This speaks to the satisfaction and stability customers are experiencing.



# IBM i in the Data Center

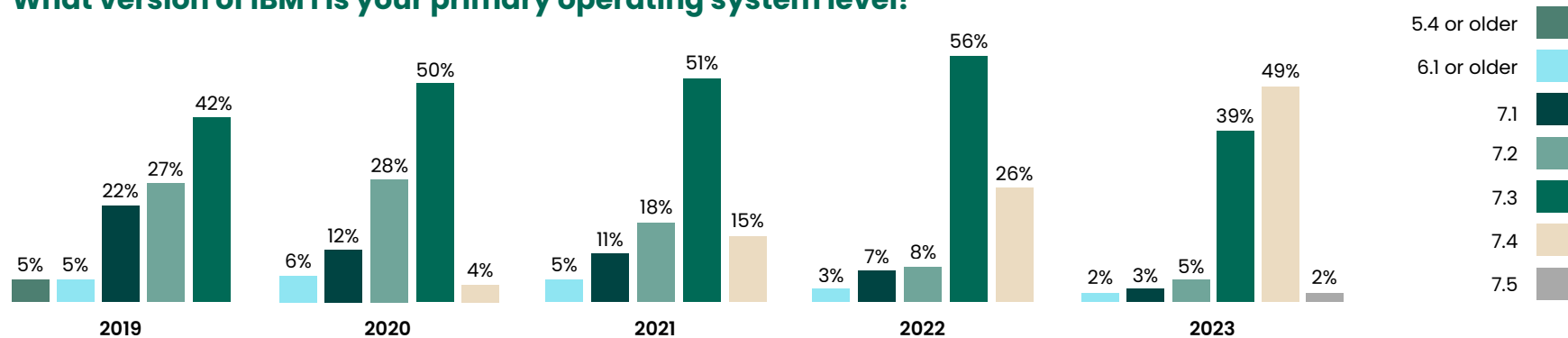
## TRENDS FOR THE YEAR

The adoption of IBM i 7.4 continues to grow while some businesses have already started migrating to the newest version 7.5. At the same time, the use of older versions is steadily decreasing. Although IBM i 7.5 was just released in May of 2022, 2% of businesses have already moved to this new version. Meanwhile, this year's survey recorded the biggest shift toward 7.4, with nearly half of all respondents saying they are using 7.4 as their primary operating system level. It is evident that customers are adopting the most recent releases more quickly than previous releases, and this is justified by the need to reap the benefits of the features of newer versions along with the necessity to provide a secure environment to support remote operations.

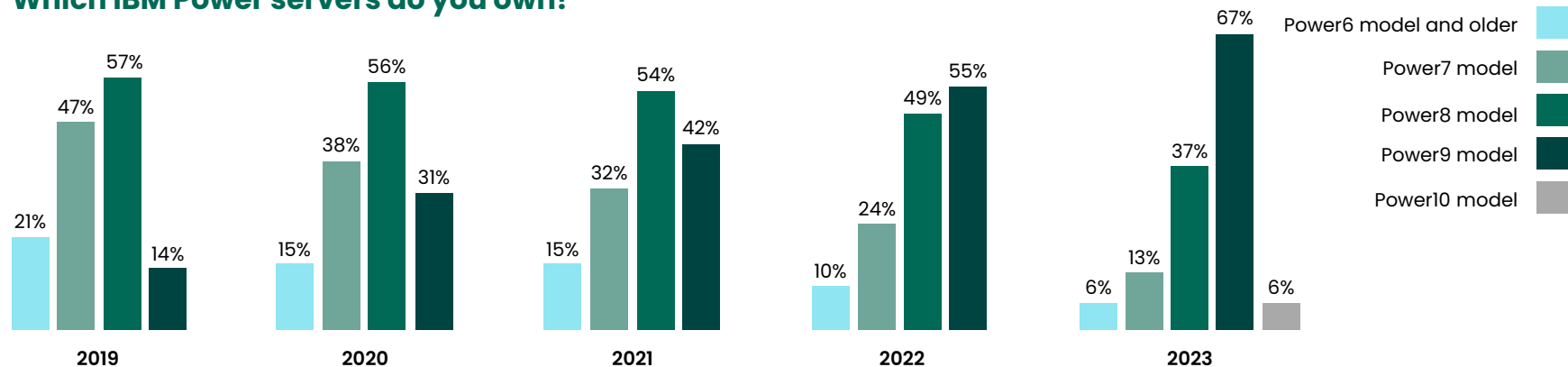
The use of 7.3 has dropped drastically from 56% in 2022 to just 39% this year. This year's survey recorded a further decrease in the use of 7.1 or older and 7.2, from 10% to 5%, and 8% to 5% respectively. This makes sense, as IBM ended support for IBM i 7.2 in April 2021, while the support for 7.3 ends in September 2023.

Regarding Power servers, the use of Power9 has spiked—increasing from 55% to 67%. It is also interesting to note that although Power10 came out on H2 2022, 6% of organizations report having adopted the new server, a finding that correlates with the adoption rates of IBM i 7.4 and 7.5. Reliance on the IBM Power platform continues.

### What version of IBM i is your primary operating system level?



### Which IBM Power servers do you own?





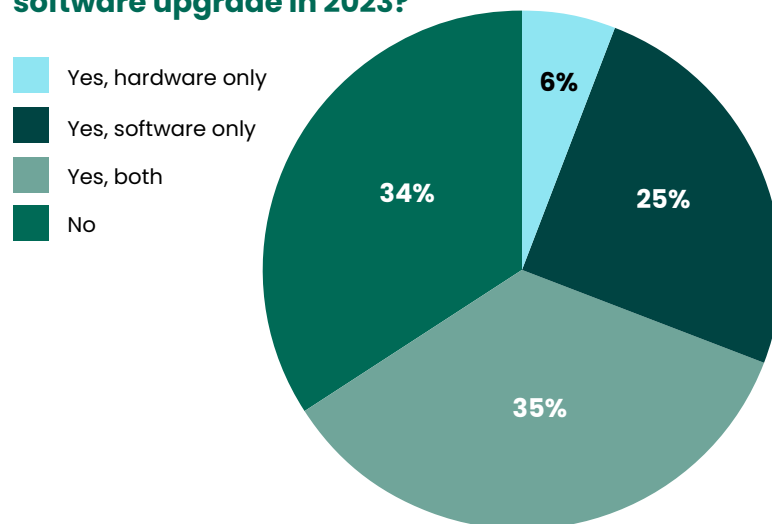
# IBM i in the Data Center

## UPGRADES

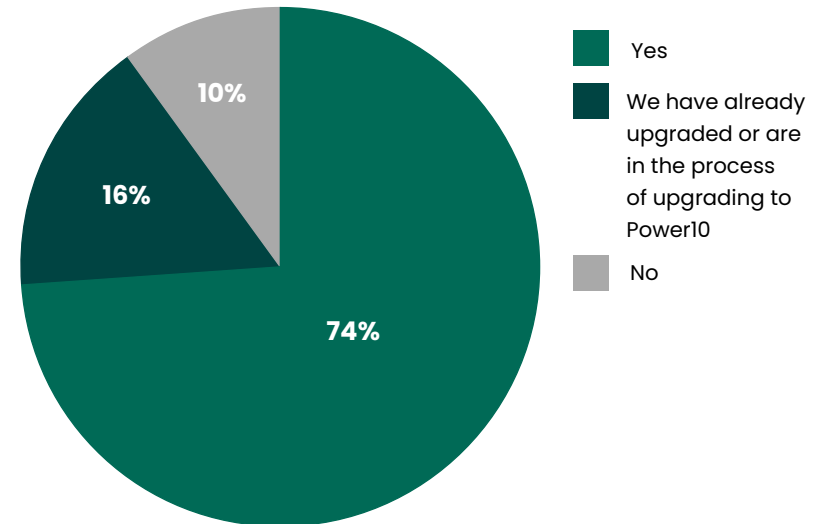
IBM i is an environment that provides great value to its users and one to which users show loyalty and commitment. This is reflected in this year's upgrade trends, with 66% of respondents planning to upgrade hardware, software, or both in 2023—up 5% from last year's responses. This corresponds with past history when IBM announces a new server version the following year becomes more active.

This also means that 34% of respondents have no plans for hardware or software upgrades in 2023. Importantly, most clients are on a 3-5 year refresh cycle, but hardware and software upgrades are usually staggered, which is evident in the percentage differences between those that plan to update hardware or software only versus both at the same time.

### Do you have plans to do a hardware and/or software upgrade in 2023?



### Are you considering upgrading to Power10?



Organizations are beginning to adopt the IBM Power E1080 scale-up servers or the scale-out S1014, S1022, S1022s and S1024 running the Power10 processor which was launched in September 2021 and July 2022. This year's findings indicate that 6% of the respondents have already migrated to using Power10, while another 74% are strongly considering it. This is no surprise, as we know there are tangible benefits to new hardware around security, virtualization, and high availability.

In H2 2022, IBM delivered the next round of Power10 servers geared toward their scale-out customers, which represent a large part of IBM's business. There was also the release of the new IBM i operating system 7.5. Both changes speak to the commitment IBM has to the Power platform. This also means that older hardware will begin to phase out because of the software levels it supports. Make sure to plan your upgrades accordingly, so you aren't left unsupported.

**RECOMMENDATION:** For anyone that does upgrade their hardware in 2023, programs such as the **IBM i Solution Edition** and **Capacity Backup (CBU) boxes for high availability** can be a huge help, with users eligible for rebates when new hardware and software are bundled together.



# IBM i in the Data Center

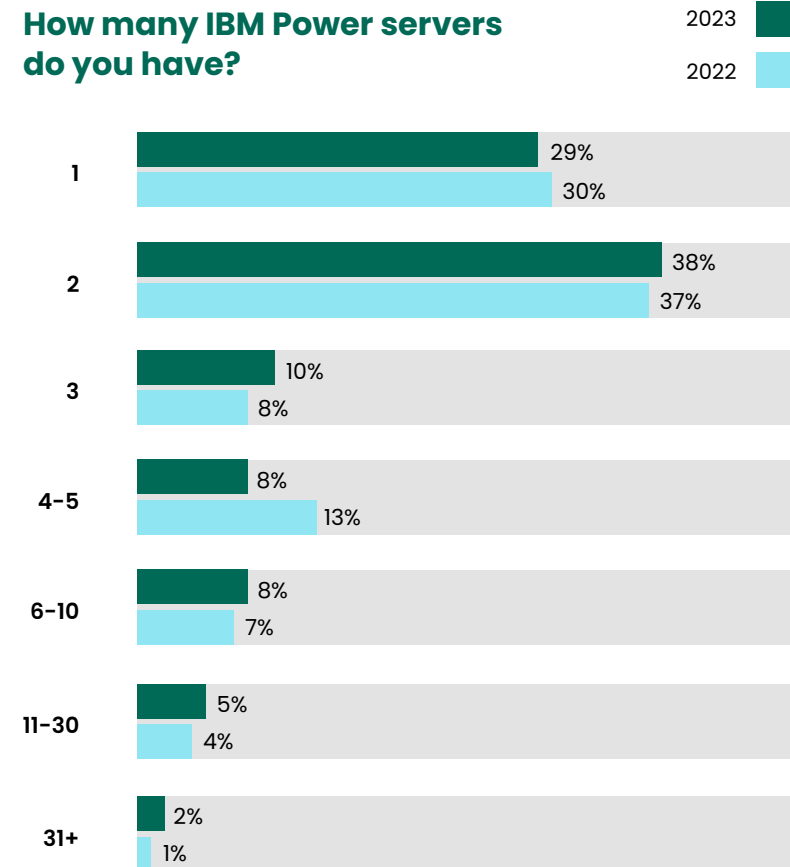
## POWER SERVER CAPACITY

When it comes to the total number of IBM Power servers organizations use, the IBM i Marketplace Survey shows impressively stable patterns year after year, and this year is no different. Customers with two or more IBM Power servers are generally running some form of hardware or software-based high availability.

Turning attention to the number of partitions (virtual machine technology) respondents are running, there's a steady trend that businesses often consolidate servers but increase the number of partitions they are running. 21% of respondents run one IBM i partition, which is almost the same as in 2022. Also consistent with last year's responses, nearly half of respondents are running between two and six partitions. These VMs can share storage, processor and memory and even support live partition mobility (LPM).

The trend of taking advantage of virtual machine technology is one that we expect to continue in future editions of the IBM i Marketplace Survey. This allows customers to run separate environments for development, quality assurance, high availability, Linux, and AIX alongside their IBM i production environment all in one physical IBM Power server. It also enables reduced power consumption and more effective utilization of resources.

### How many IBM Power servers do you have?





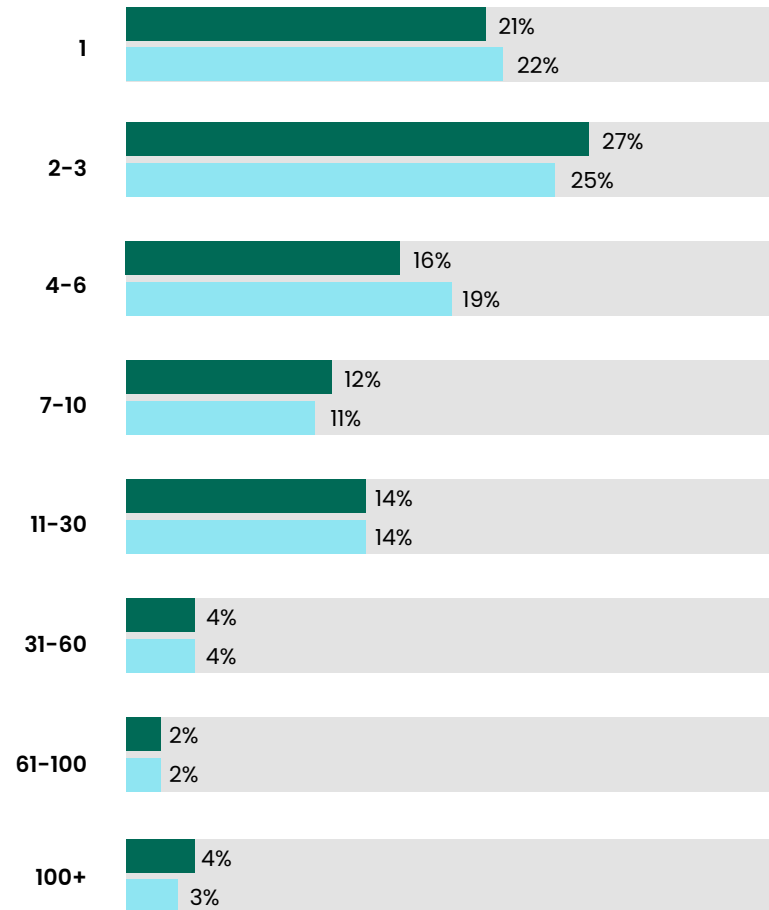
# IBM i in the Data Center

## POWER SERVER CAPACITY

How many partitions of IBM i do you run?

2023

2022







# IBM i in the Data Center

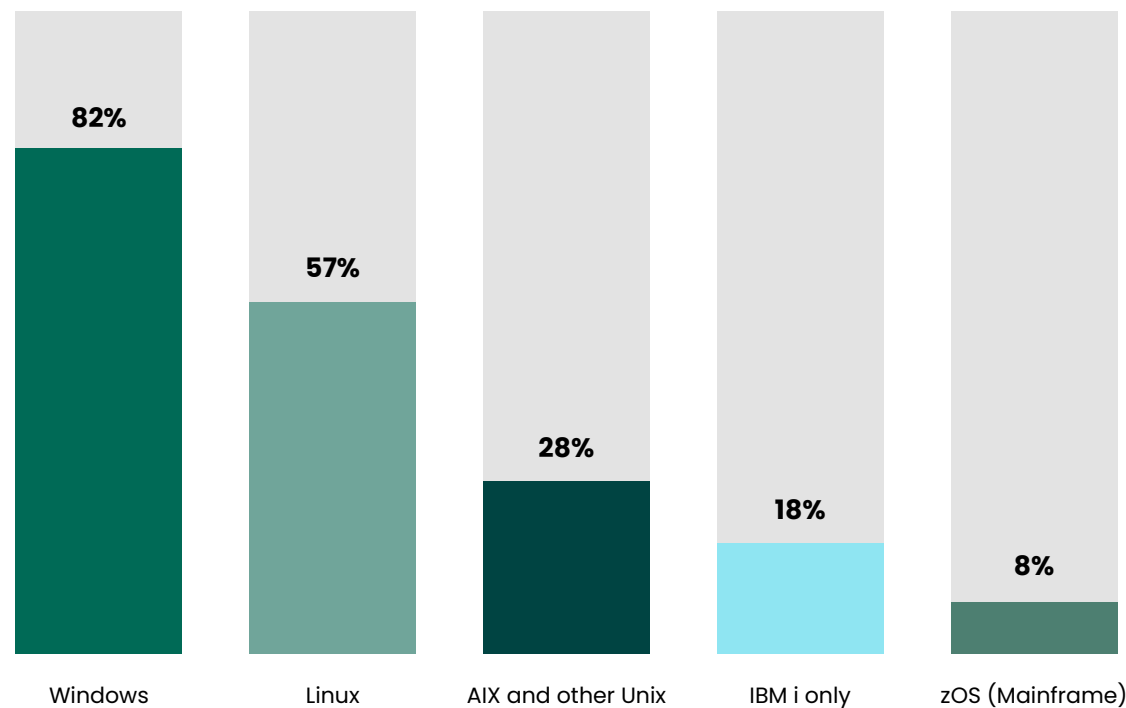
## OTHER OPERATING SYSTEMS

Most companies using IBM i also run additional operating systems beside it. Windows took the lead for a ninth consecutive year with 82% of respondents also using Windows servers. Linux is also becoming increasingly competitive as 57% of businesses are using this operating system.

IBM i-only responses remained at almost the same level as 2022 – 18%. This signifies that there is a decent segment of customers that solely rely on IBM i to run their business. Another 28% of businesses leverage AIX and other Unix-based systems for their on-premises IT environment.

It is interesting that Windows is staying high amongst Linux growth. This signifies that people could be shifting to using three operating systems in their environment. Growth in Linux could be based on new Linux workloads they are adding to their environment, while the Windows servers are staying around for those legacy workloads. Instead of replacing and moving legacy workloads, IT teams seem to be standing up different servers alongside Windows to eliminate the effort of moving servers where things are working properly.

### Other than IBM i, which operating systems do you run on servers in your on-premises IT environment?





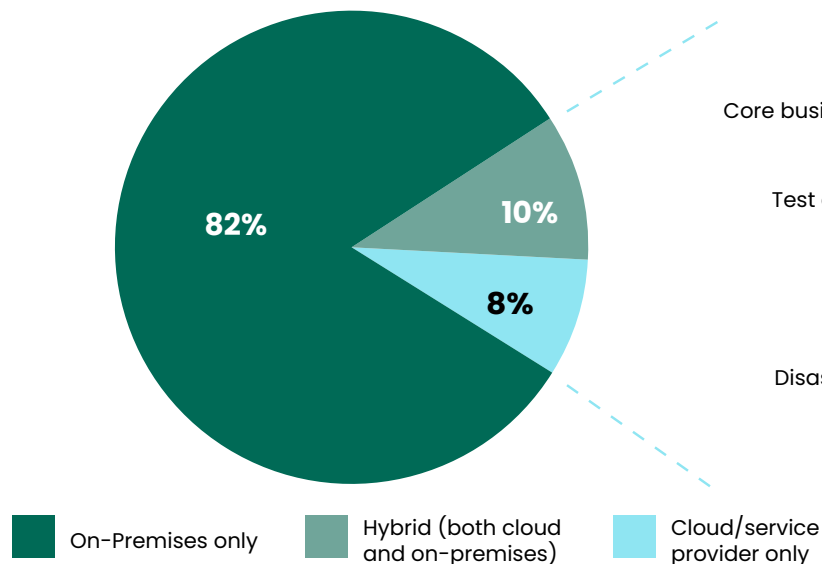
# IBM i in the Data Center

## INFRASTRUCTURE LOCATION

Historically and even today, IBM i users run most of their workloads on-premises. For example, in 2023 organizations plan to run 80% of their IBM i workloads on-premises. But, at the same time, there is a gradual increase in people using IBM i in the cloud. Those who chose the cloud over the on-premises installations, also choose to run the majority of their workloads in the cloud.

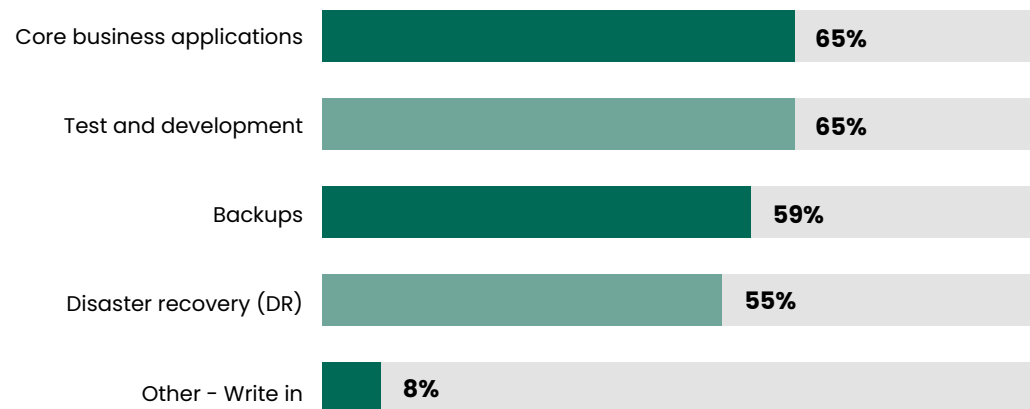
It is also worth noting that evolving technology, including cloud computing, is on the top 5 list of cybersecurity challenges. This concern contributes to a slower adoption rate of cloud-based settings or hybrid ones.

### Where do you run your IBM i workloads?



When asked about which IBM i workloads people are running in a cloud/service provider environment, we noticed once more a fluctuation of percentages as the shift to the cloud may look different for an IBM i customer compared to other operating systems. For example, core business applications increased by 7%, reaching 65% versus 58% in 2022, and test and development grows by a staggering 12%, jumping to 65% compared to 53% in 2022. At the same time, backups and disaster recover remain rather stable, as well as other workloads, such as demo platforms and EDI.

### Which IBM i workloads do you run in a cloud or service provider environment?



**RECOMMENDATION:** Running IBM i workloads in the cloud has great benefits. If you need help making the leap, whether hosting on private or public cloud, our **IBM Power Systems Modernization Series** is a great starting point.



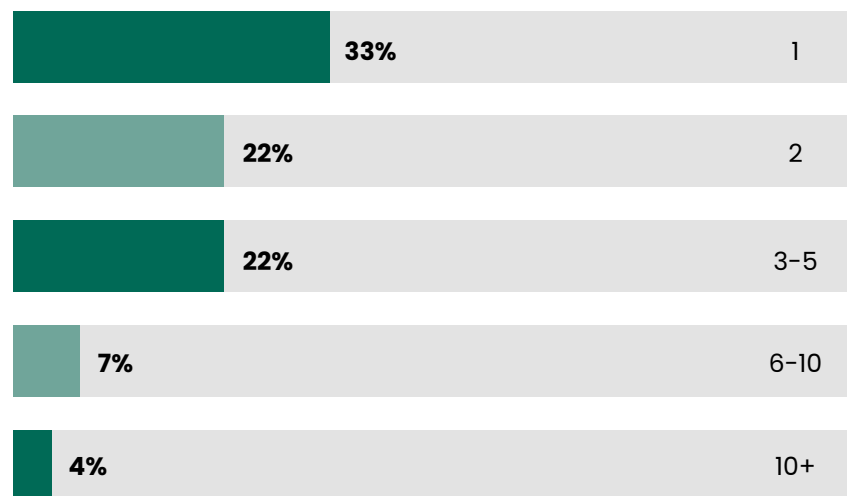
# IBM i in the Data Center

## STAFFING

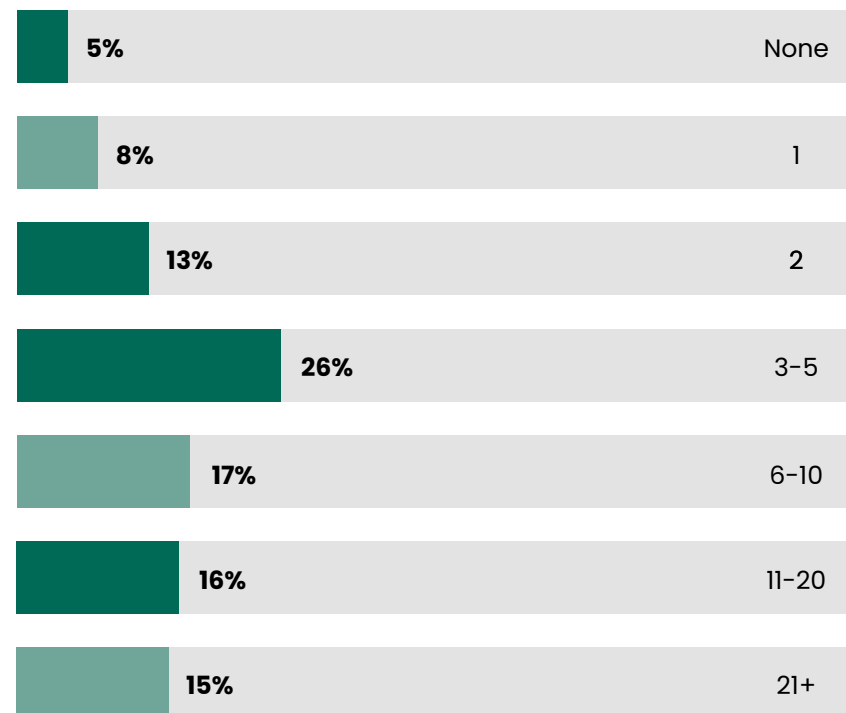
A considerable proportion of businesses (26%) continue to report employing between three and five IBM i developers, a figure that is rather stable when compared to that of the previous last nine years' of data we've collected from this survey. This consistency in developer numbers corresponds to the variety of languages, open source, and tools like RDi that are used to continue furthering the core IBM i applications. It demonstrates a large commitment to modernizing the applications that service many industries.

A key unique selling proposition of IBM i is its ability to require little day-to-day administration. This can be seen through this year's findings which revealed that 68% of our respondents have less than three administrators in total for IBM i, which is consistent with the findings from the previous years. However, there is a small uptick in the "none" option – this reflects people shifting to managed services and leveraging them as administrators for monitoring, backups, and upgrades.

### How many administrators do you have for IBM i?



### How many developers do you have for IBM i?



**RECOMMENDATION:** Having the right expertise is a key component of any successful IBM i environment. If you feel your team is under-resourced or lacking certain skills, check out the [IBM i Academy](#) or first-class [training](#) options to fill any gaps you may have. IBM i user group like [COMMON USA](#) and [comeur.org](#) Europe also offer educational and networking opportunities. If you are a member of COMMON, you also have access to free [security and administration boot camps](#).



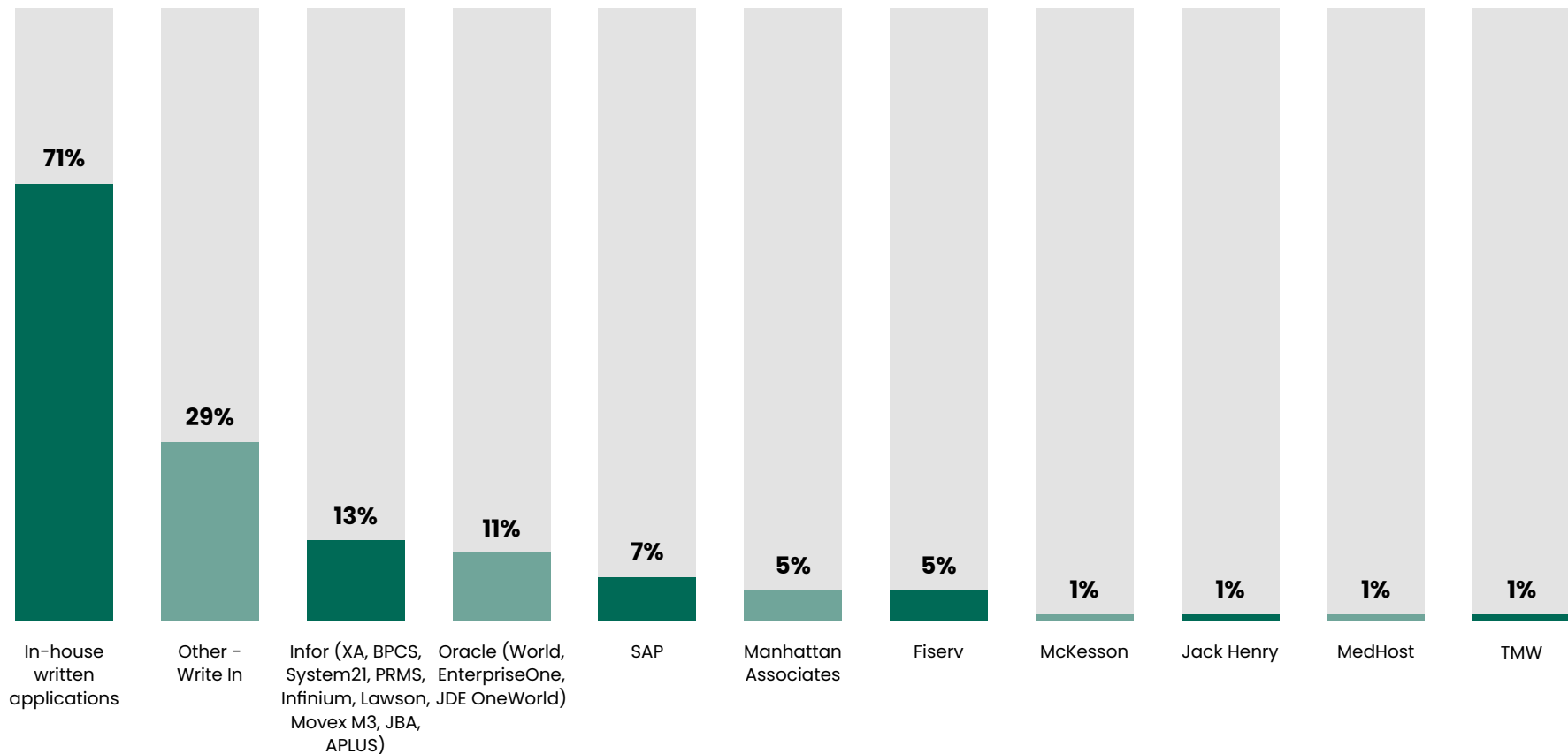
# IBM i in the Data Center

## BUSINESS APPLICATIONS

Homegrown applications that are written in-house remain the most commonly run applications on IBM i (71%). Other “Write In” applications, tailored to specific business cases like medical, finance, and public administration, continue to account for almost one-third of business applications running on IBM i. In addition, Oracle and/or Infor continue to be used by about a quarter of survey respondents.

IBM i is a hugely flexible and versatile platform, as indicated by the volume of different business applications noted. With flexibility so highly valued in business, this trend is only likely to continue. These unique business applications will continue to make IBM i a sticky platform. It needs to be noted, however, that when writing in-house applications, it is essential to adhere to application security principles and your developers be educated and trained on writing secure and quality applications.

### Which business applications are you running on IBM i?





# IT Initiatives & Trends

## TOP CONCERNS

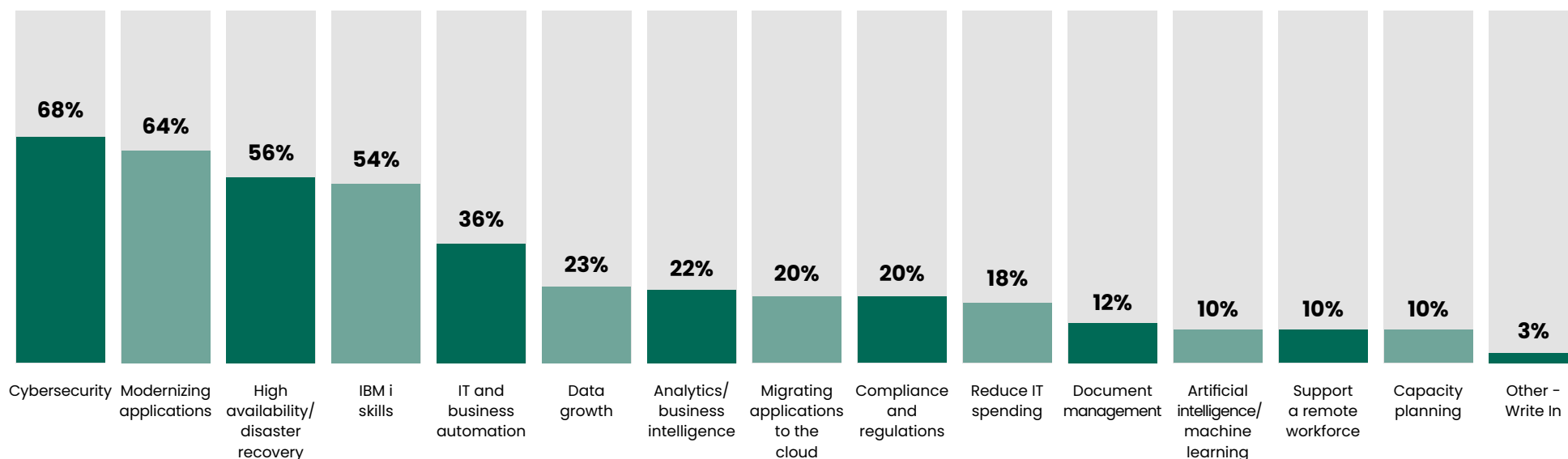
Perhaps the most consistent data point in the IBM i Marketplace Survey Results is the ongoing cybersecurity threat. Since 2017 cybersecurity has been the main concern for people planning their IT environment, and this year was no exception. 68% of respondents admit cybersecurity is their number one concern. With the continued rise in the activity of bad actors, cybersecurity is most likely destined to hold this top spot for the years to come.

Coming in next is modernizing applications at 64%, which makes sense because IBM has been focusing on the message of moving to the cloud to experience the value proposition of cloud-based applications and services. IBM and their

business partners have a strong portfolio of products/tools for modernization. Considering this concern jumped ahead of high availability, it is a strong message that organizations need to take a holistic approach to cybersecurity, where application security is always baked into the processes of modernizing applications.

High availability/disaster recovery dropped to the third place of concerns at 56%, which is consistent with the results from previous surveys. The good news with HA/DR is that you have options and [this webinar](#) is a good place to start. Rounding out the top 5 biggest concerns are [IBM i skills](#) (or the lack of it) and IT and business automation.

### What are your top 5 concerns as you plan your IT environment?



**RECOMMENDATION:** Given that cybersecurity is such a strong and ongoing concern for IBM i users, it's crucial to continue to gain a deeper understanding of the cybersecurity environment. The Fortra [State of IBM i Security Study](#) provides exclusive insight into the tools and strategies organizations are using to secure IBM i and where systems are most often left vulnerable. If modernization is your concern, check out our [IBM Power Systems Modernization Series](#) which includes topics such as hardware, applications, cloud, and more.



# IT Initiatives & Trends

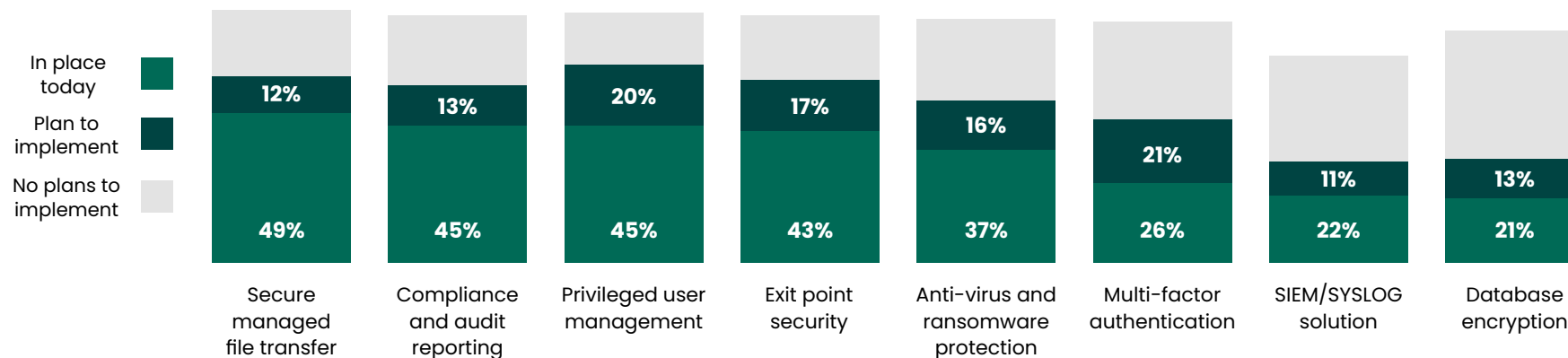
## CYBERSECURITY

We understand cybersecurity is a top priority for most businesses nowadays. In the last several years, we have seen enough examples of organizations being brought to their knees by data breaches, ransomware, and security vulnerabilities to realize the devastation that may result from neglecting to prioritize cybersecurity. Even though businesses that place a high value on security appear to be deploying many solutions, the fact that 27% of respondents do not intend to implement each of the solutions surveyed is concerning.

Despite database encryption being a major aspect of many regulations, 42% of respondents claimed they had no plans to apply it. It's possible that this is because some businesses don't view the data they're storing on IBM i as particularly critical, or because the customer is placing trust in applications they're using to handle encryption.

Other worrying statistics include that 32% and 27% do not plan to implement multi-factor authentication or anti-virus and ransomware protection, respectively. Although deployment of both security measures is gradually increasing, it is important to highlight that lack of these controls may have serious repercussions when it comes to cybersecurity insurance coverage as both are mandatory requirements.

### Which security solutions do you have in place or plan to put in place across your IBM i servers?



**RECOMMENDATION:** If your organization is one that currently has no plans to implement certain cybersecurity solutions, it's worth rethinking that approach. If you are unsure of how to start, our free [IBM i Security Scan](#) and a team of experts will point you in the right direction, and [The State of IBM i Security Study](#) provides even more insight into the tool and strategies organizations are using to secure IBM i.



# IT Initiatives & Trends

## CYBERSECURITY CHALLENGES

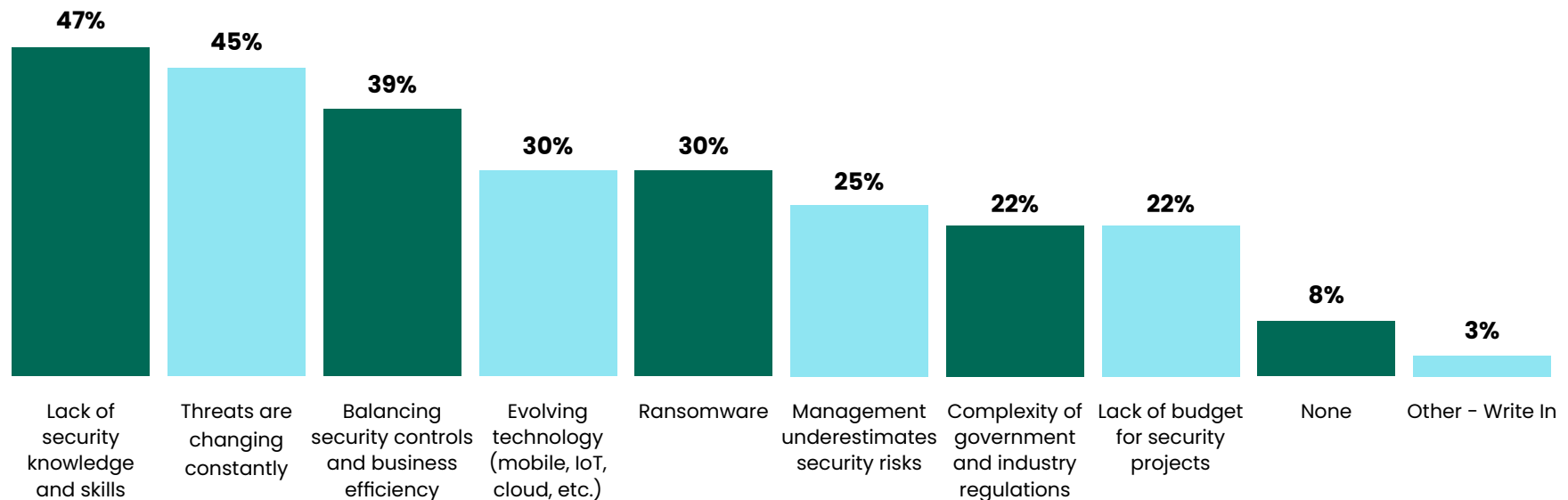
Of all the IBM i security challenges organizations face, a lack of security knowledge and skills once again topped the list this year, further rising to 48%. Another 45% rate the constantly changing threats as their greatest challenge, a further increase of 3 points since 2022. These top two concerns reflect the current status quo in cybersecurity across all industries and boardrooms.

It is also interesting to note that the third concern is about balancing security and business efficiency. Too strict security control will leave employees inefficient in their roles and in the pursuit of achieving

business goals. Balancing security and employee experience is a fine act. Organizations need, powerful, capable tools that can launch our business into the future with its best foot forward, all while avoiding breaches and security gaps.

Adaptation is the overarching goal in the face of cybersecurity threats. The ever-evolving nature of threats requires ongoing vigilance on the part of businesses. As a result, we expect that the difficulty of staying current with compliance mandates will continue to expand over time, especially as state-level regulations get more complex.

### What are your greatest IBM i cybersecurity challenges?



**RECOMMENDATION:** In a year that continued to serve up fresh cybersecurity challenges, choosing a cybersecurity partner who understands how to manage constantly evolving threats becomes even more important. **Managed Security Services (MSS)** from Fortra is a great option to fill in any gaps in the latest expertise on IBM i or the entire enterprise. As ransomware continues to be concern, make sure you're **building a strategy to prevent and detect attacks**.



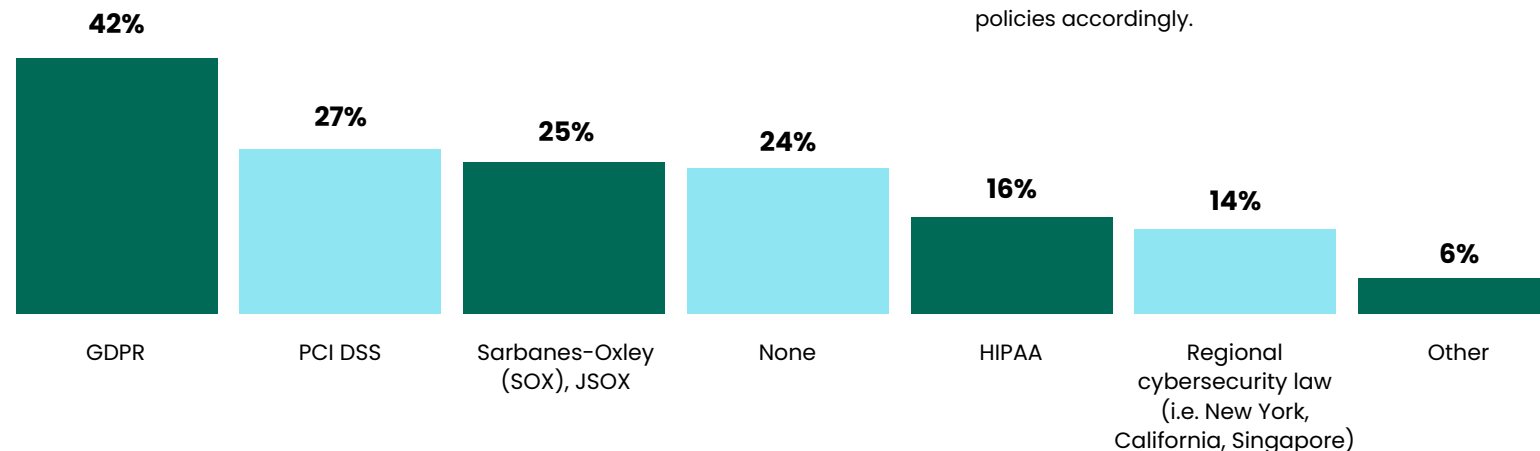
# IT Initiatives & Trends

## REGULATIONS

There has been a big shift in IT and industry over the past several years toward implementing long-overdue improvements in data privacy, and this movement has also gained substantial traction at the national and state levels. Increases in both the number of regulations and the severity of punishments for breaking them indicate that compliance mandates are here to stay.

This makes it all the more surprising that 24% of our respondents do not adhere to any compliance mandates. While this figure has dropped significantly from 40% in 2018, it is still astonishing to see. If you are a privately owned business that does not need to comply with certain regulations, consider business continuity as your driving force

### Which regulations do you adhere to?



to ensure you have the correct tools in place – what would happen if your employees couldn't access the correct systems because of a cybersecurity attack? On average, 30% of respondents reported that they are adhering to at least one regulation, namely GDPR, PCI DSS, SarbanesOxley, and HIPAA.

It is also interesting to note that more and more businesses are now mandated by state regulations, such as those in California and New York. In addition, as more and more countries adopt their national or regional regulations, the number of organizations required to adhere to these laws will only increase in the years to come. While Gartner estimates that 75% of world countries will be covered by privacy legislation in 2023, new laws and regulations are being enacted, especially in the EU (such as DORA and Data Governance Act), making it essential to be vigilant of the changes and adapt data governance policies accordingly.

**RECOMMENDATION:** Compliance is incredibly important, but some organizations struggle to find the resource to manage requirements efficiently. This [compliance monitoring and reporting software for IBM i](#) simplifies compliance report generation and allows you to quickly and easily provide auditors with the information they need. Automating audit processes is becoming a necessity for many organizations as they cannot afford to continue using manual and time-consuming methods.





# IT Initiatives & Trends

## DEVELOPMENT LANGUAGES

The amount of development that takes place on IBM i is always a particular area of interest in our research, and this year the development languages used for new development show some interesting trends. The usual leaders—RPG and SQL— remain at the top this year with 93% and 80% respectively, but RPG usage has skyrocketed. People have worried that RPG was going to fade away, but IBM's modernization of the language has helped it become a viable language into the future. It has the ability to call services, integrate open source, SQL and other modern techniques. Organizations are using modern, modular, free format RPG for new development, and they are pairing this with other languages, which is evident in the number of languages that have significant usage.

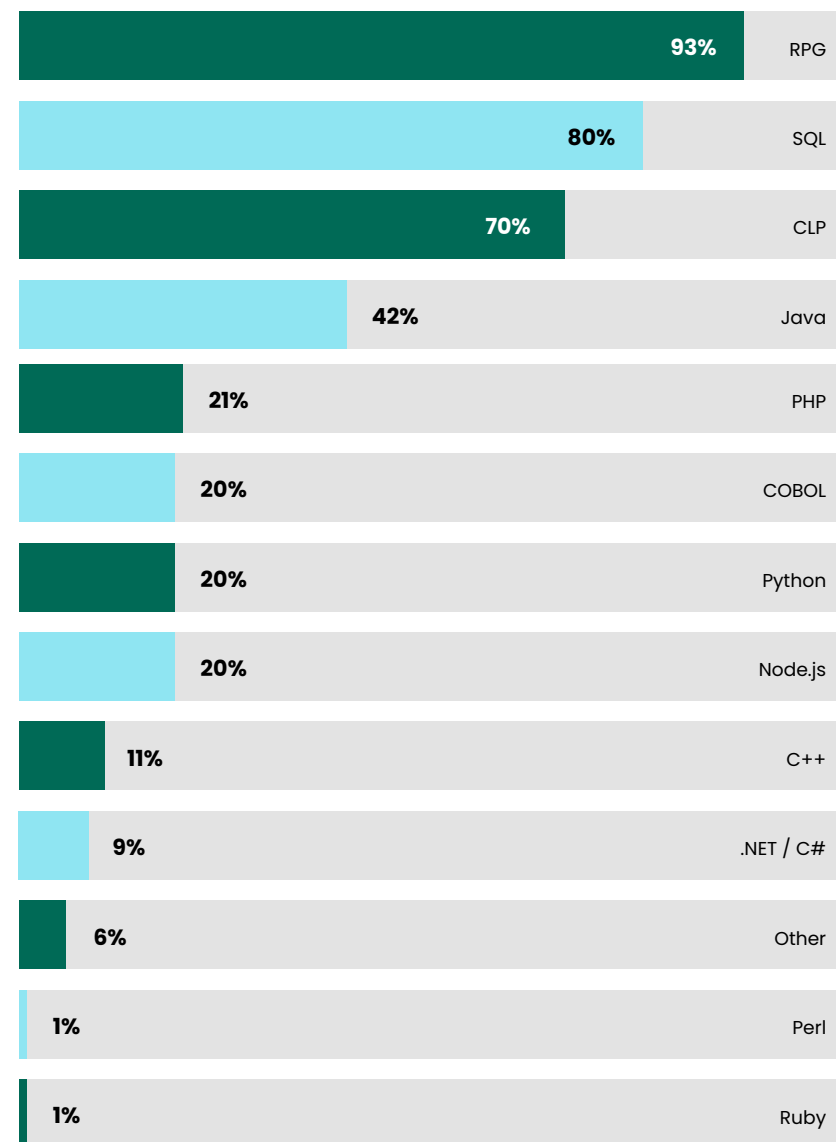
CLP continues to rise another 5 points to 70%, and Java remains stable at around 40%. CLP helps with the automation efforts as there is basically a command line interface to automate just about anything on IBM i. The number of users for other, more traditional development languages stayed very steady – PHP at 21% and Python at 20%.

We are seeing more and more people writing in a combination of languages, especially because modern RPG looks and acts like other languages, which also makes it easier to teach. This is promising for the future of IBM i and can help to close the IBM i skills gap.

### RECOMMENDATION:

As technology and development landscapes continue to evolve over time, it's increasingly important for organizations to stay on top of current trends. If you're looking for educational resources, organizations like **COMMON**, Fresche, Perforce, Profound Logic, and Lansa often offer webinars or other types of training that may be beneficial.

## Which development languages do you use today for new development on IBM i?





# IT Initiatives & Trends

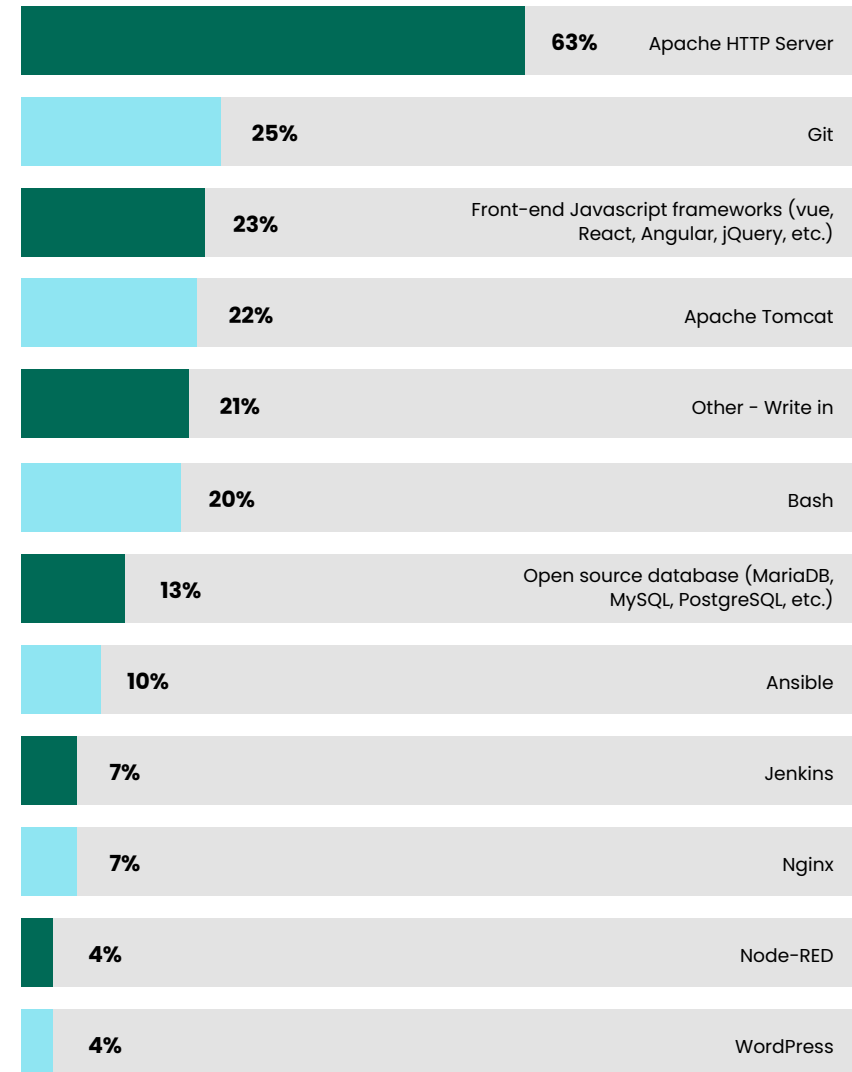
## SOURCE DEVELOPMENT TOOLS

Open source, much like the rest of the IT world, is always developing. The increasing number of open source tools being implemented on IBM i is evidence of the significant effort put in by IBM to increase the availability of open source alternatives. As a matter of fact, 22% of people answering the survey are acting in a fairly open manner.

Key insights to note are the further 5-point increase for Git to 25%, and another 7-point increase in Bash usage to 20%. Jenkins and Ansible continue to appear in the table, and together, with the increased use of Git and Bash, is a strong indication that businesses are putting DevOps approaches to use in IBM i workloads. This is part of the modernization conversation and justifies why application modernization is in the top two on the list of concerns.



## Which open source tools are you using on IBM i?



**RECOMMENDATION:** With open source development almost certain to increase over the coming years, it is wise to ensure your development teams are ready for this. Information regarding support for open source on IBM i can be found [here](#).



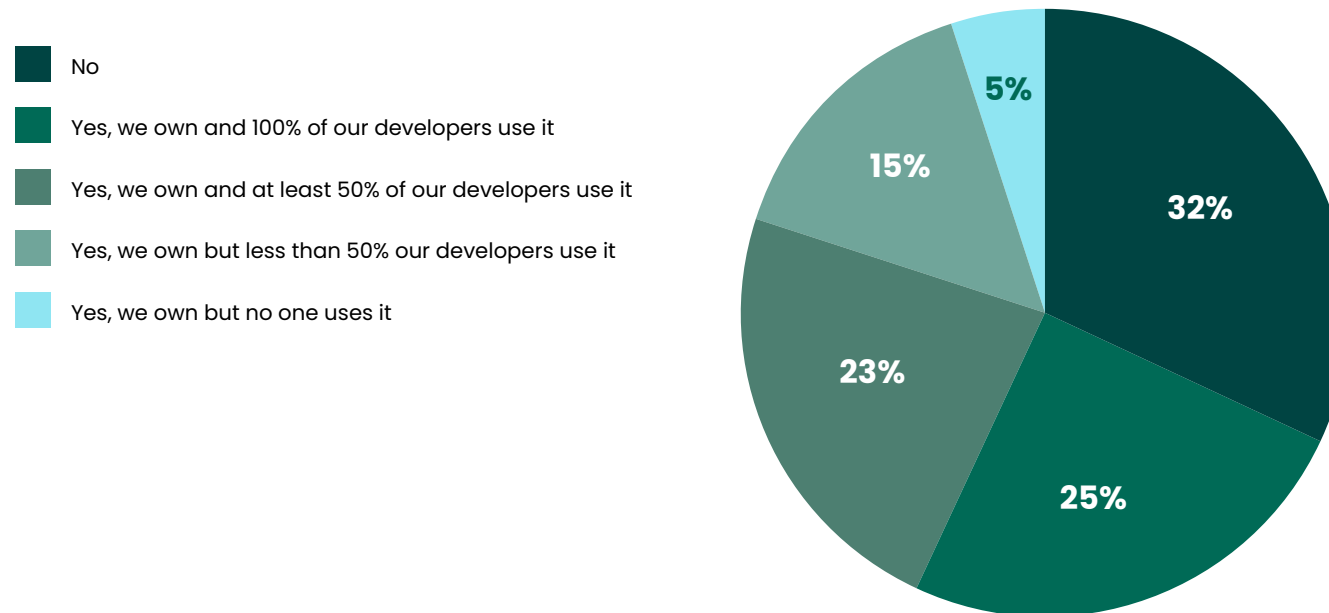
# IT Initiatives & Trends

## RATIONAL DEVELOPER

Rational Developer for i (RDi) is regarded as one of the leading productivity tools for IBM i. As a result, we're encouraged to see this year's survey responses reflect a continued trend towards using RDi. 25% of respondents said that 100% of their developers use RDi, while 48% say that 50% or more of their developers use it. Application modernization efforts, newer IBM i operating systems, and new technologies like [Merlin](#) also contribute to this trend.

The adoption of cutting-edge practices is essential for attracting and retaining talented software developers. Maximizing output requires modern and efficient tools like RDi. In today's increasingly remote workplace, the facilitation of collaboration through RDi is essential. It also facilitates the departure from legacy development methods and tools in favor of cutting-edge, forward-thinking alternatives.

### Do you own/use Rational Developer for IBM i (RDi)?



**RECOMMENDATION:** RDi is technology rich with potential for any IBM i shop. If it's a question of not being quite sure how best to deploy it, these [six RDi tutorials](#) contain a wealth of suggestions and tips to maximize the value from RDi.



# IT Initiatives & Trends

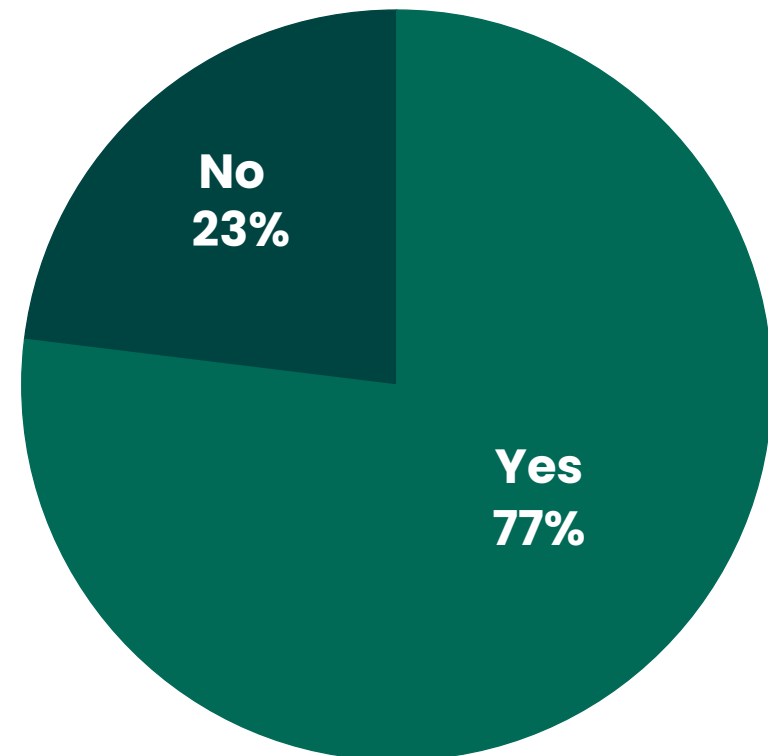
## AUTOMATION

When asked, “Does your IBM i run fully unattended after working hours?”, 77% of respondents said yes. This is a trend that continues to rise ever since 2021 and is a clear manifestation of workforces shifting drastically to remote work. The percentage of respondents who say they attend to IBM i operations outside of normal business hours has dropped to less than a quarter.

Even though 36% of people are worried about IT and business automation, interest in RPA has been on the rise (RPA). With RPA and IBM i automation, you can “set it and forget it” while still readily adjusting as your organization evolves thanks to the rule-based technology that underpins both.

To help clients that run many instances of IBM i, IBM has been developing deployment and configuration automation tools. Ansible and Bash are two items used in helping with deployment and system configurations.

### Do your IBM i operations run fully unattended after normal working hours?



**RECOMMENDATION:** Automation can be incredibly useful for any IT department, saving time, money, and resources. If you are unsure whether more automation is suitable for your organization, a Fortra [guided automation assessment](#) can help with the decision-making. If you're working towards going paperless, check out our [document management solutions](#) that automate key business processes by electronically capturing, managing, and distributing documents and forms on-premises or in the cloud.



# IT Initiatives & Trends

## HIGH AVAILABILITY

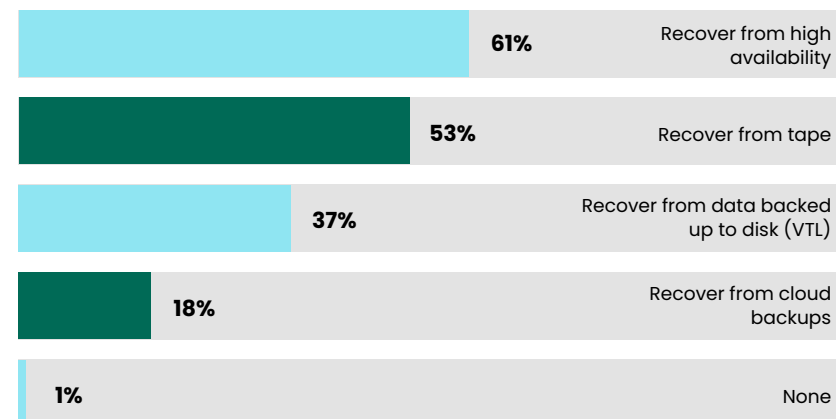
Unsurprisingly, 56% of our respondents this year cited high availability/disaster recovery as a top concern when planning their IT environment. The good news is that nearly all of the survey respondents have one or more systems in place to recover from a disaster. IBM i customers have a multitude of backup and recovery options to match their companies desired recover time object (RTO) and recovery point object (RPO).

It is worth noting that cloud backups are steadily increasing, along with the finding that 53% of organizations rely on recovering from good old trusted tape and 61% high availability. Customers today are also using storage point in time backups like FlashCopy. We expect to see a rise in the reliance on all different types of recovery in the future.

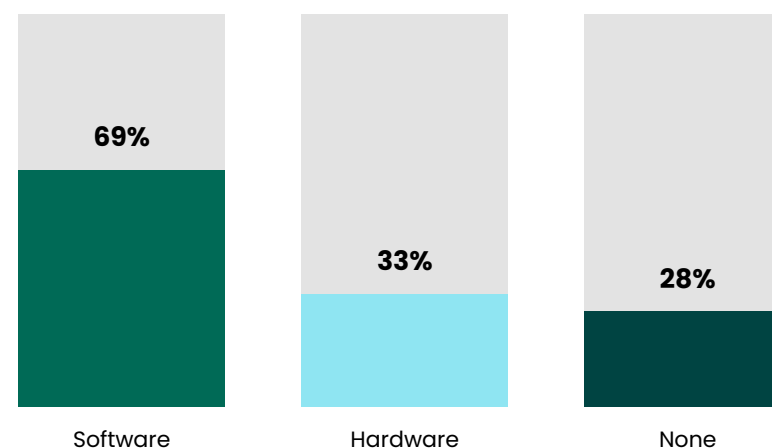
Software-based replication continues to be the clear favorite when it comes to the type of high-availability technology that organizations use, but hardware-based technology holds steady with 22% of respondents using IBM PowerHA and a total of 33% using other forms of hardware-based replication.

When we talk about modernization, we tend to talk just about application modernization, but how you implement infrastructure to be more resilient is a type of modernization that is just as crucial.

## What kind of system do you have in place to recover from a disaster?



## Which high availability technology do you use with IBM i?



**RECOMMENDATION:** Disaster recovery cannot be left to chance or ignored completely—we are talking directly to the 1% with no disaster recovery systems now! Fortra has a range of [business continuity solutions](#) and services that can help you plan for (and recover from) the worst. Our team can guide you through the various IBM i HA/DR tools such as [PowerHA](#), [Robot HA](#), and [Db2 Mirror for i](#).



# IT Initiatives & Trends

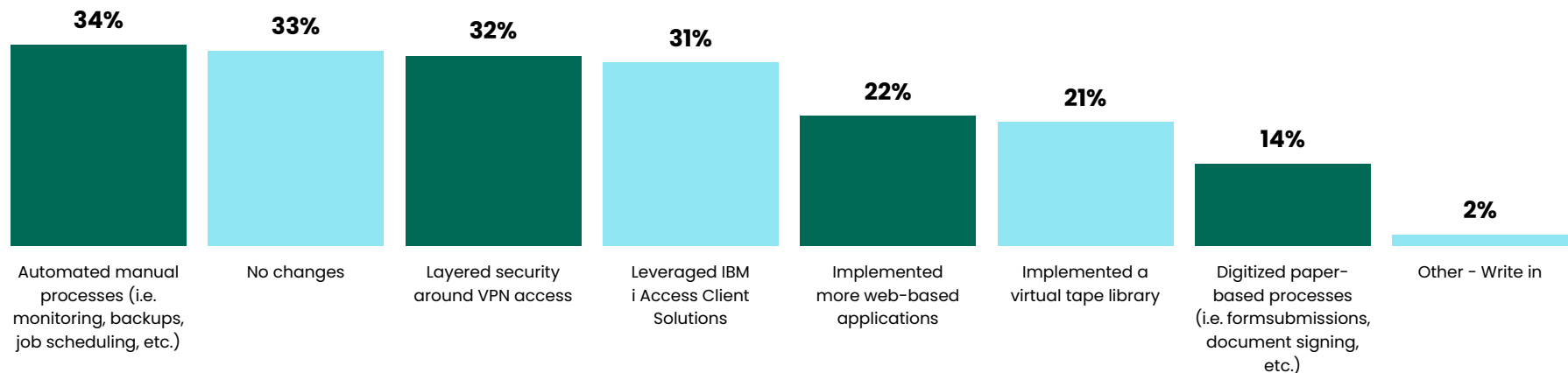
## REMOTE OPERATIONS

With workforces shifting to a remote or hybrid work model, businesses need to adapt and support remote operations. Along with this comes a new set of challenges, which most notably include security concerns with remote access at 51% (up five points from 2022) and supporting employees working from home at 32%.

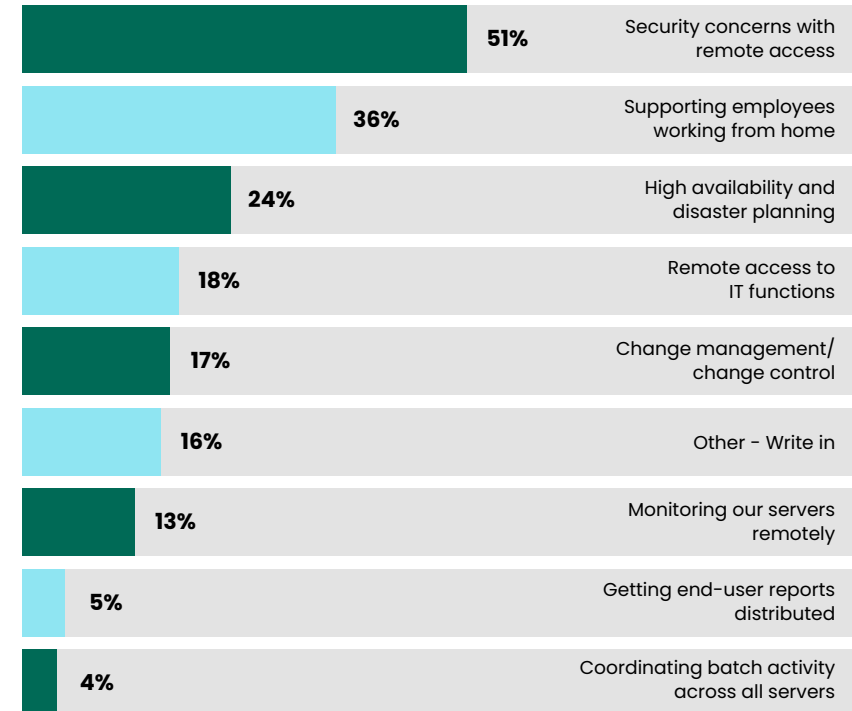
To offset these challenges, IT and security priorities have shifted to ensure the new day-to-day operations are running smoothly. These top changes include automating manual processes at 34%, implementing layered security around VPN access at 32%, and leveraging IBM i Access Client Solutions at 34%. These findings, especially the automation of processes, correlate with the previous result that more businesses are running their IBM i fully unattended.

It is also worth noting that one third of respondents said they made no changes at all to support remote operations. Since this is a consistent finding from last year, it is now safe to assume these companies were already supporting a large volume of remote employees or operations, even before the pandemic, and had the capabilities to support the further shift.

### What changes have you implemented on IBM i to support remote operations?



### In supporting remote operations, where do you feel your IT team has struggled most?





# Outlook for IBM i

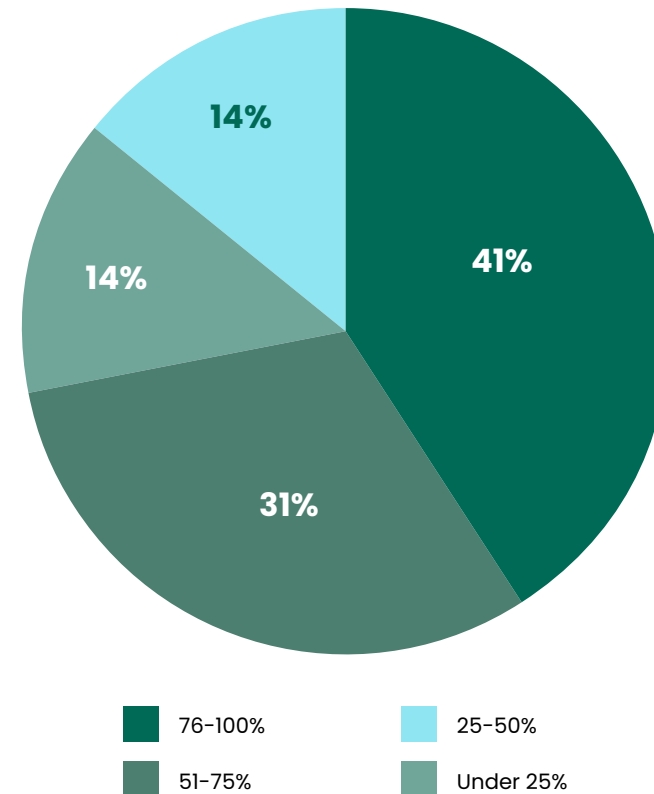
## BUSINESS APPLICATIONS

An organization can't function well without its fundamental business applications. These applications must be readily accessible, execute quickly, and provide enterprises with the assurance that they will perform as expected.

It's no surprise that many businesses rely on IBM i for their most critical applications, given the platform's reputation for dependability and durability. More than half of the respondents' primary business applications are being run on IBM i. This demonstrates users' confidence in the IBM i platform.

This year's results also saw a slight upward trend in the number of users that run between 51% and 75% of their core business applications on IBM i—up to 31%.

### What percentage of your core business applications run on IBM i?



**RECOMMENDATION:** With applications relying very much on access to core business data, the role of business intelligence (BI) cannot be underestimated when it comes to successful applications. Fortra has a suite of **BI solutions and services** that dovetail seamlessly with IBM i and allow business users and leadership teams to make smarter and more informed decisions based on real-time data.



# Outlook for IBM i

## PLANS FOR THE PLATFORM

We have witnessed the evident value that users obtain from IBM i throughout the nine years that we have been collecting data for the IBM i Marketplace Survey. This is exemplified by the fact that 20% of those who responded intend to grow their IBM i footprint in 2023. From a management standpoint, IBM i requires fewer personnel and has a lower cost of ownership. As a result, it is not difficult to understand why organizations are interested in expanding their footprint. 37% of users plan to keep operating their IBM i environment in its current configuration, which is a reflection of the satisfaction and stability that customers are currently enjoying.

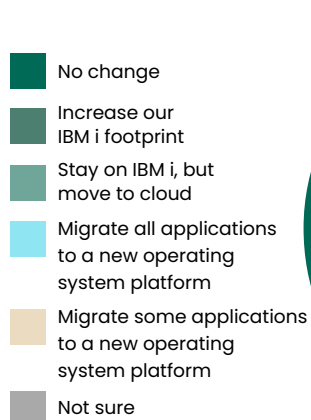
The percentage of businesses who will continue to use IBM i with no change is smaller than on 2022 (37% vs 43%). This is justified by the fact that another 12% of

respondents reported they will stay on IBM i but are moving to the cloud, a clear indication that they are gradually realizing the benefits of cloud environments.

Additionally, 21% of organizations are planning to move some or all of their applications to another operating system or service. Windows-based servers come out highest at 49%. If planning to move applications, Windows is not a surprising choice as many organizations have Windows servers running alongside IBM i. The number of users planning to move applications to Linux dropped by four points to 32% and AIX dropped by the same amount to 2%.

Over time, there isn't a strong drive for people to move from IBM i as only 4% of respondents plan to migrate all applications from IBM i within 2 years.

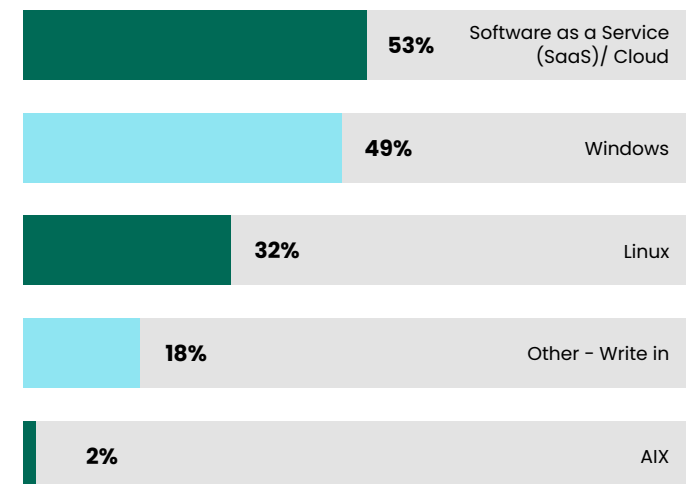
### What are your plans for the IBM i platform?



### When will you migrate all applications from IBM i?



### What operating system or service are you planning to move your applications to?



**RECOMMENDATION:** If you are thinking about leaving IBM i, you need to understand the true cost of migration. We have seen first-hand customers attempting to move off IBM i over a period of time and then failing to do so. This failure is very expensive to your organization as it sets you years behind in application modernization and hardware levels. Our recommendation is to talk to both consultants who are for moving off IBM i as well as those who are against the move. They will help you understand the true costs associated with replatforming.





# Outlook for IBM i

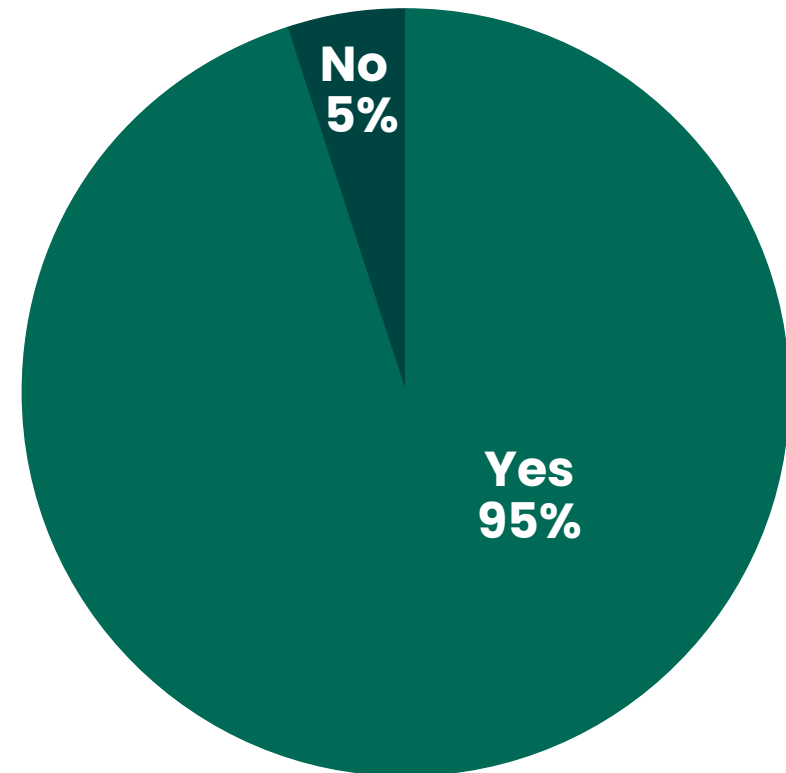
## RETURN ON INVESTMENT

The most constant result of the annual IBM i Marketplace Survey over the past nine years has been the value that IBM i provides to its consumers. IBM i has consistently delivered a high return on investment (ROI), and 2023 will be no exception.

In a record-breaking year, 95% of respondents said they believe IBM i provided better ROI than other servers. This number has never been below 90% in nearly a decade of analysis, demonstrating that IBM is committed to maintaining a system that provides substantial value to its devoted clientele.

We know that many survey participants use multiple servers, so their opinions on the best server are well-informed. IBM i is a trusted platform, and its popularity will continue to rise in the years to come.

**Do you believe your IBM i server gives you better ROI than other servers?**

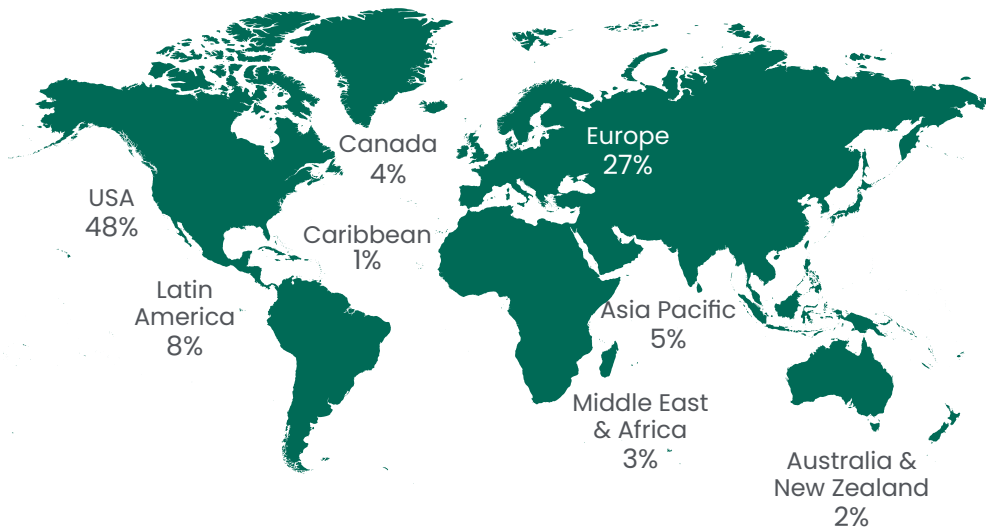




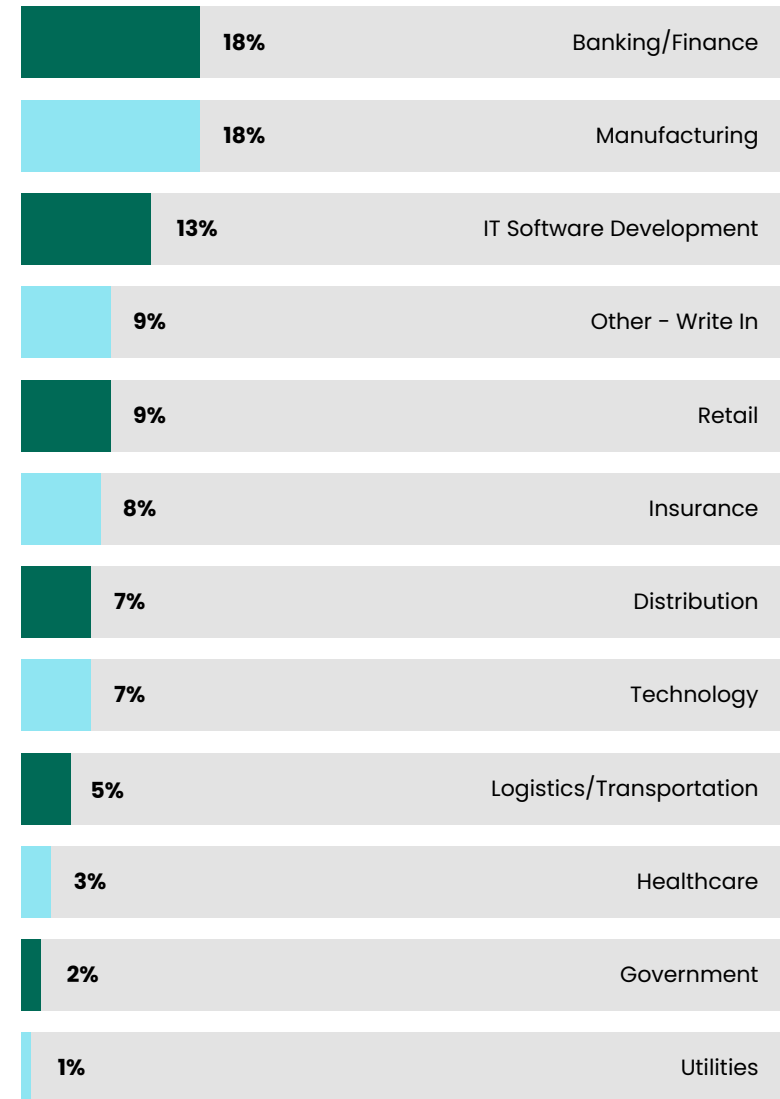
## Demographics

This survey represents the viewpoints of IBM i professionals from around the globe across multiple industries and regions. This diverse sampling spans variability in budgets, company size, server size, operating system versions, and experience levels to give a representative and diverse look at the worldwide IBM i market. This year saw an uptick in the number of respondents from Europe, and a slight downturn by 3 points from respondents in the United States. Manufacturing and banking/finance are the top two seats as the main industries of our respondents this year.

### Where are you located?



### What is your organization's primary industry?



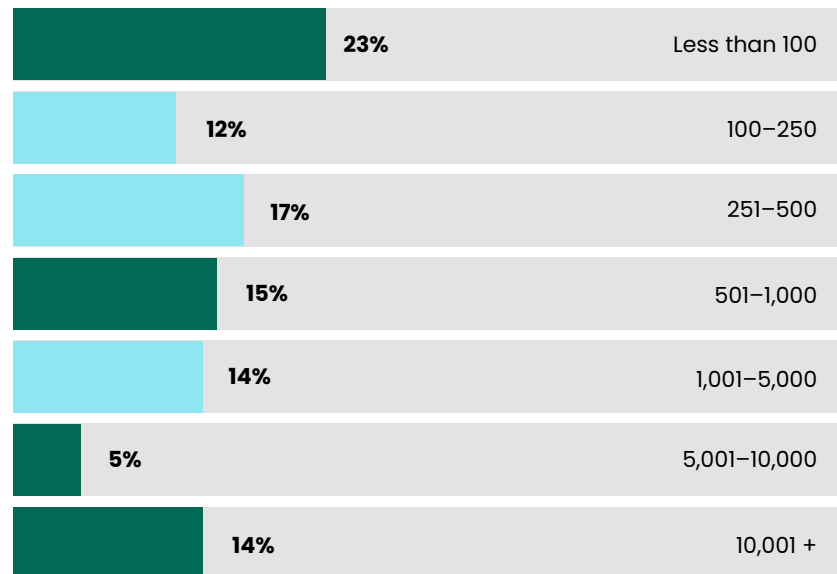


## Demographics

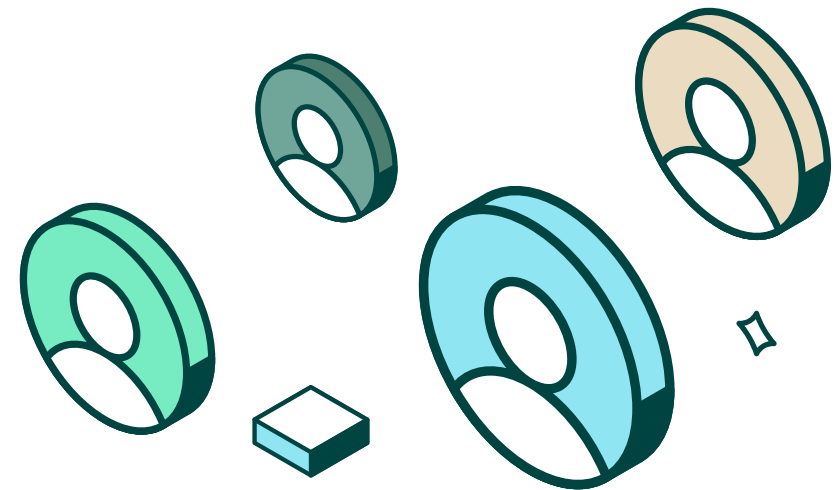
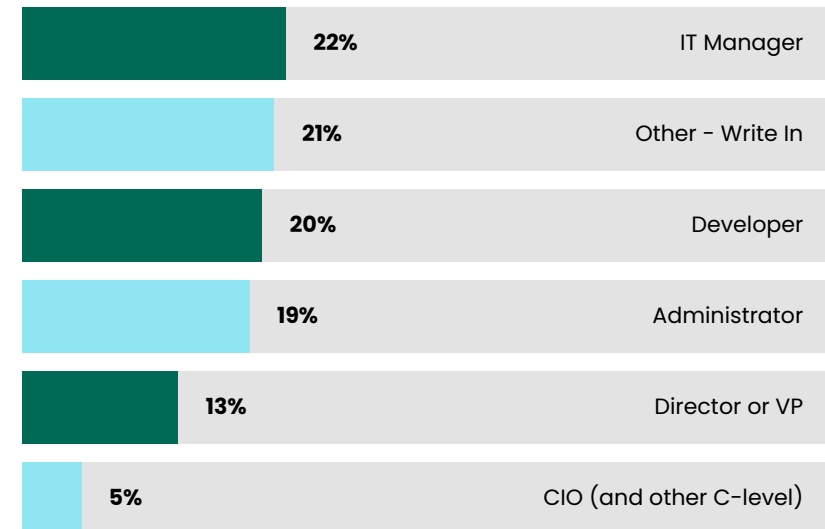
This year was a balance between respondents coming from a smaller organization (less than 500 employees) and those coming from bigger ones (51% vs 49% respectively). In terms of the job titles of respondents, they are mostly IT managers, developers, and administrators, while under the “Other” option you may find titles like account manager, architect, and engineer.



### How many employees does your organization have?



### What is your job title?





## Resources

If you're planning new projects for your IT environment, this list of tools, tips, and solutions is a great place to get you started.

### Security & Compliance

[Powertech](#), [Fortra Security Services](#), [GoAnywhere MFT](#), [State of IBM i Security Study](#), [IBM i Security e-Course](#), [IBM i Security Scan](#)

### High Availability

[Robot HA](#), [IBM i High Availability Handbook](#), [PowerHA](#), [Recovery Without Disaster Guide](#), [Business Continuity eCourse](#), [Business Continuity Quiz](#)

### IBM i Skills

[IBM i Talent Retirement Guide](#), [IBM i training courses](#), [IBM i Academy](#), [Manta Technologies](#), [The 400 School](#), [COMMON](#), [COMMON Europe](#), [IBM Education](#), [Central Park Data Systems](#), [System i Developer](#), [iTech Solutions Group, LLC](#)

### Automation

[Robot](#), [Halcyon](#), [Guided Automation Assessment](#)

### Modernization

[RDi](#), [Sequel](#), [RPG Toolbox](#), [Fresche](#), [Lansa](#), [Perforce](#), [Profound Logic](#), [Arcad Software](#), [IBM Redbook](#), [State of IBM i Modernization](#), [IBM Merlin](#)

### Mobility

[Asna](#), [Lansa](#), [Zend](#), [Sequel Web Interface](#)

### Data Growth

[Robot Monitor](#), [Robot Space](#)

### Business Intelligence

[Sequel Data Access](#), [Sequel Data Warehouse](#)

### Going Paperless

[Fortra Document & Forms Management](#)

### Capacity Planning/ PM400 Replacement

[Performance Navigator for IBM i](#)

### Cloud Infrastructure

[IBM i in the Cloud Webinar](#), [IBM Cloud Migration Considerations Webinar](#), [Skytap](#), [Google Cloud](#), [IBM Cloud for Power](#)

### Industry Insights

[Considering Leaving IBM Platforms?](#), [IBM i Roadmap by IBM](#), [Open Source Support on IBM i](#)