2022 IBM i Marketplace Survey Results

2022 marks the eighth edition of the IBM i Marketplace Survey Results. Each year, 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.

This survey always encourages conversation, debate, and discussion about IBM i, and the challenges of the past couple years continue to bring more change to organizations across the globe. Budgets have shifted to security and to support a more remote workforce, organizations have continued to work fully distributed, and business as usual looks very different than it did just a few years ago.

Despite ongoing challenges, almost 500 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 high availability, disaster recovery, modernization, automation, IBM i skills, and all things cloud. There were many other data points that we hope you will find interesting as you plan your 2022 IT 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 HelpSystems who put so much time and energy into publishing these results.

Thank you,

Tom Huntington

Executive Vice President of Technical Solutions, HelpSystems

ABOUT THE AUTHOR

Tom Huntington is an IBM Power Champion and Executive Vice President of Technical Solutions at HelpSystems, with more than 30 years of experience with IBM i technology. He visits (or video calls) 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.
SURVEY HIGHLIGHTS

Cybersecurity continues to top the charts as the main concern when planning an IT environment.

Perhaps the most consistent data point in the IBM i Marketplace Survey Results is the ongoing cybersecurity threat. Over the past six years, cybersecurity has been the main concern for people planning their IT environment, and this year was no exception. Although it has decreased since last year’s results, 62% of respondents still said this was their number one concern. And although organizations prioritizing security seem to be implementing multiple solutions, it is still alarming that, on average, almost 30% of respondents do not plan to implement each 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.

Outlook for Power10 looks strong.

IBM launched the IBM Power E1080 scale-up servers running the Power10 processor in September 2021. This was after our survey had opened, so it will be interesting to see how many organizations choose to upgrade, but when asked about Power10, 73% of respondents said they are considering it. This is no surprise, as we know there are tangible benefits to new hardware around security, virtualization, and high availability. The launch of Power10 also means that older hardware will begin to phase out which software it supports. Make sure to plan your upgrades accordingly, so you aren't left unsupported.

IBM i remains business-critical for many organizations.

Given that IBM i is known for its stability and reliability, among other things, it is not surprising to see so many users running the majority of their core business applications on the platform. 70% of respondents use IBM i to run more than half of their core business applications. This speaks to the trust that users have for the IBM i platform. The number of respondents planning to migrate all applications from IBM i over the next two years is still in the lower single digits at 5%.

Remote operations become the new normal for most organization.

Business as usual looks different these days, and that likely means supporting remote operations. Along with this comes a new set of challenges, which most notably include security concerns with remote access at 46% and supporting employees working from home at 42%. Many organizations are also making changes to better support remote operations such as automating manual processes (38%), leveraging IBM i Access Client Solutions (34%), and implementing layered security around VPN access (32%).

Rational Developer (RDi) usage increases as companies continue to prioritize collaboration, productivity, and modernization.

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 big trend towards using RDi. 22% of respondents said that 100% of their developers use RDi, up from 16% in 2021. RDi makes it easier to collaborate, which is essential in today's largely work-from-home environment. 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.

Development on IBM i continues, and RPG usage soars.

The amount of development that takes place on IBM i is always a particular area of interest in our research and this year RPG usage has soared to 93%. 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.

Nearly all respondents believe IBM i provides greater ROI than other server options.

94% of respondents this year believe their IBM i server gives them better ROI than other servers, the highest figure since 2016. Nearly one quarter of respondents will increase their IBM i footprint in 2022, and 43% of users will continue to run their IBM i environment as is. This speaks to the satisfaction and stability customers are experiencing.
Adoption of IBM i 7.4 continues to grow—the use of older versions are decreasing and newer versions are increasing. 26% of respondents are using 7.4 as their primary operating system level, nearly double the amount that were last year. This is an encouraging sign, showing that people are continuing to move forward in their deployment of IBM i even with a distributed workforce.

The use of 7.3 has increased by 5% from 2021 to 2022, with significant drops in the usage of 7.1 or older and 7.2, from 16% to 10%, and 18% to 8% respectively. This makes sense, as IBM ended support for IBM i 7.2 in April 2021.

Regarding Power servers, use of Power9 has spiked—increasing from 42% to 55%.

Reliance on the IBM Power platform continues. With the announcement that 7.4 will be the last release that supports Power8, which currently serves about half of clients, it will be interesting to see the shifts that take place in the Power hardware that supports IBM i from 2022 to 2023.
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 61% of respondents planning to upgrade hardware, software, or both in 2022—up 3% from last year's responses.

This also means that 39% of respondents have no plans for hardware or software upgrades in 2022. 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 2022?**

- Yes, hardware only: 39%
- Yes, software only: 23%
- Yes, both: 28%
- No: 10%

IBM launched the IBM Power E1080 scale-up servers running the Power10 processor in September 2021. This was after our survey had opened, so it will be interesting to see how many organizations choose to upgrade, but when asked about Power10, 73% of respondents said they are considering it. This is no surprise, as we know there are tangible benefits to new hardware around security, virtualization, and high availability.

In 2022, IBM is expected to deliver the next round of Power10 servers geared toward their scale-out customers, which represent a large part of IBM's business. Rumor also has it there will be a new IBM i operating system level in 2022. Both changes speak to the commitment IBM has to the Power platform.

The launch of Power10 also means that older hardware will begin to phase out which software it supports. Make sure to plan your upgrades accordingly, so you aren't left unsupported.

**RECOMMENDATION:**

For anyone that does upgrade their hardware in 2022, 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.
Year after year, the trends in the IBM i Marketplace Survey relating to the number of IBM Power servers have remained remarkably consistent, and this year is no exception. This points to IBM i as a very stable environment. Plus, multiple servers continue to reflect more and more people implementing high availability solutions.

IBM Power servers are proven technology and users are happy with the reliability. Turning attention to the number of partitions respondents are running, there’s a steady trend from 2021 to 2022 with the majority of users running more than one partition. 22% of respondents run one IBM i partition, which is the same as 2021. Also consistent with last year’s responses, nearly half of respondents are running between two and six partitions.

This trend of virtualization 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. It also enables reduced power consumption and more effective utilization of resources.
Most companies using IBM i also run additional operating systems beside it, with Windows taking the lead—76% of respondents also use Windows servers. Although it dropped slightly from last year, Windows took the top spot again in 2022. Linux is also becoming increasingly competitive as we saw the use of Linux increase to 55% in 2022.

The IBM Power server hardware supports virtual environments (partitions) with different operating systems: AIX (IBM’s flavor of Unix), Linux (RedHat, Ubuntu, SUSE, etc.), and IBM i. This shared hardware technology helps IBM advance the Power processor technology for future generations.

Last year, IBM i-only responses notably decreased. This year’s survey showed a rebound—19% of respondents are using IBM i-only, up from 13% in the 2021 survey. This signifies that there is a decent segment of customers that solely rely on IBM i to run their business.

Other than IBM i, which operating systems do you run on servers in your on-premises IT environment?
Year over year, there has been a gradual increase of people using IBM i in the cloud. Following that trend, we saw a 5% increase in respondents saying they run their IBM i workloads in a hybrid environment—both cloud/service provider and on-premises. This is a trend we see continuing in future survey results.

Notably, the number of on-premises only responses decreased and now makes up just less than 80% of workloads. While still a large percentage of respondents, this decrease is likely the result of business changes due to COVID-19, more support for IBM Power in the cloud, and the continued push to hybrid infrastructure environments.

When asked about which IBM i workloads people are running in a cloud/service provider environment, most areas saw decreases from the first time we asked this question in 2021. Backups dropped by 13% along with test and development from 64% to 53%. Core business applications and disaster recovery remained about the same. These numbers are expected to fluctuate over time as the shift to the cloud may look different for an IBM i customer compared to other operating systems. For example, x86 is all about removing the challenges of managing server sprawl, whereas IBM i does not have these same challenges as you can easily add more storage, processor, or memory to your environment.

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

- On-premises only: 78%
- Cloud/service provider environment only: 15%
- Hybrid: 7%

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

- **Disaster recovery (DR):** 56%
- **Core business applications:** 58%
- **Backups:** 58%
- **Test and development:** 53%
- **Other:** 10%

**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 webinar on **planning for IBM i in the cloud** is a great starting point.
IBM i IN THE DATA CENTER:

The number of developers across organizations remained fairly consistent with the results from last year’s survey, with 28% of organizations reporting 3-5 developers for IBM i, which was the largest segment of respondents. This reflects the fact that people are continuing to develop on IBM i—it is a platform with longevity and also one that is capable of ongoing modernization to suit evolving requirements.

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 73% of our respondents have less than three administrators in total for IBM i, which is just two points higher than the 2021 results. There hasn’t been a major shift away from these admin roles, which again highlights the stability of this market.

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

<table>
<thead>
<tr>
<th>Number of Developers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>7%</td>
</tr>
<tr>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>3-5</td>
<td>28%</td>
</tr>
<tr>
<td>6-10</td>
<td>19%</td>
</tr>
<tr>
<td>11+</td>
<td>10%</td>
</tr>
<tr>
<td>None</td>
<td>11%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Number of Administrators</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>10%</td>
</tr>
<tr>
<td>1</td>
<td>34%</td>
</tr>
<tr>
<td>2</td>
<td>29%</td>
</tr>
<tr>
<td>3-5</td>
<td>20%</td>
</tr>
<tr>
<td>6-10</td>
<td>5%</td>
</tr>
<tr>
<td>11+</td>
<td>2%</td>
</tr>
</tbody>
</table>

**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](url) or first-class training options to fill any gaps you may have. IBM i user group [COMMON](url) and events like [IBM TechU](url) also offer educational and networking opportunities. If you are a member of COMMON you also have access to free security and administration bootcamps.
Although there was a drop from 76% to 67% year over year, homegrown applications that are written in-house remain the most commonly run applications on IBM i. This is the first year since conducting the Marketplace Survey that we’ve seen such a decrease.

With the slight decrease in homegrown applications, we saw a rise in "Write In" applications like VAI S2000, Epicor CMS, and FIS Global to name a few. In addition, Oracle and 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.

Which business applications are you running on IBM i?

- **Homegrown applications written in-house**: 67%
- **Other - Write In**: 31%
- **Infor (XA, BPCS, System21, PRMS, Infinium, Movex, Lawson, JBA)**: 15%
- **Oracle (World, EnterpriseOne, JDE OneWorld)**: 8%
- **SAP**: 6%
- **Manhattan Associates**: 5%
- **Fiserv**: 4%
- **Jack Henry**: 1%
- **TMW**: 1%
- **MedHost**: 1%
- **Euronet**: 1%
Perhaps the most consistent data point in the IBM i Marketplace Survey Results is the ongoing cybersecurity threat. Over the past six years, cybersecurity has been the main concern for people planning their IT environment, and this year was no exception. Although it has decreased since last year’s results, 62% of respondents still said this was their number one concern. With the continued rise in activity of bad actors, cybersecurity is most likely destined to hold this top spot.

Coming in next is high availability/disaster recovery at 59% and then modernizing applications at 56%, which jumped 5 points from last year. Although we aren’t seeing a huge shift to cloud for IBM i users, this could also mean updating browser interfaces, modernizing the database, SQL Services, or adding open source to their server. This doesn’t mean that IBM i customers are necessarily anti-cloud, but the value proposition isn’t yet apparent like it is with other servers as server sprawl isn’t a concern for IBM i customers. Another explanation could be that IBM i customers are more cost-conscious and there aren’t huge cost benefits associated with moving to the cloud. Modernization will continue to be an ongoing trend as new technologies are discovered and released.

Rounding out the top 5 biggest concerns are IBM i skills 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 on-going concern for IBM i users, it’s crucial to continue to gain a deeper understanding of the cybersecurity environment. The HelpSystems 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 that includes topics such as hardware, applications, cloud, and more.
We know cybersecurity is a major concern for the majority of organizations. We have seen enough examples over the past few years of companies brought to their knees by data breaches, ransomware, and security vulnerabilities to understand the damage that failing to prioritize cybersecurity can cause. Although organizations prioritizing security seem to be implementing multiple solutions, it is still alarming that, on average, almost 30% of respondents do not plan to implement each of the surveyed solutions.

Most notably, 42% of respondents said that they are not planning on implementing database encryption despite it being a big part of many regulations. This could be that some organizations don’t consider what they’re storing on IBM i as sensitive information, or it could reflect that the customer may be relying on applications they are running to handle the data encryption.

Other worrying statistics include that 34% and 32% do not plan to implement multi-factor authentication or anti-virus and ransomware protection, respectively.

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

<table>
<thead>
<tr>
<th>Security Solution</th>
<th>In place today</th>
<th>Plan to implement</th>
<th>No plans to implement / not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure managed file transfer</td>
<td>15%</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Privileged user management</td>
<td>16%</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>Compliance and audit reporting</td>
<td>17%</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>Exit point security</td>
<td>17%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Antivirus and ransomware protection</td>
<td>20%</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Multi-factor authentication</td>
<td>21%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Database encryption</td>
<td>16%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>SIEM/SYSLOG solution</td>
<td>12%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

**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 team of experts will point you in the right direction.
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 HelpSystems is a great option to fill in any gaps in the latest expertise. As ransomware continues to be concern, make sure you’re building a strategy to prevent and detect attacks.

What are your greatest IBM i cybersecurity challenges?

- Lack of security knowledge and skills: 47%
- Threats are changing constantly: 42%
- Balancing security controls and business efficiency: 38%
- Evolving technology (mobile, IoT, cloud, etc.): 30%
- Complexity of government and industry regulations: 24%
- Management underestimates security risks: 23%
- Lack of budget for security projects: 22%
- None: 10%
- Other - Write In: 2%
The long-overdue changes to data privacy has been a major trend in IT and business over the past few years and has gained significant traction within regional or state-specific geographies as well. With more requirements, higher penalties, and stricter enforcing, it’s obvious that regulations 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’s astonishing to see. The number of respondents adhering to Sarbanes-Oxley (SOX or JSOX), PCI DSS, and GDPR have remained relatively flat year over year, but we are seeing that 12% of organizations are adhering to regional cybersecurity laws being enforced by New York, California, and Singapore, for example. It will be interesting to track this number over time as additional regional regulations are put into place.

The biggest increase is those adhering to HIPAA regulations. The results in 2022 were the highest we’ve ever seen in this survey, coming in at 21%. This could correlate to a higher number of respondents in the healthcare industry responding to the survey or could be a result of COVID-19 dominating headlines and reinforcing healthcare privacy.

Which regulations do you adhere to?

- GDPR: 34%
- Sarbanes-Oxley (SOX), JSOX: 30%
- PCI DSS: 27%
- None: 24%
- HIPAA: 21%
- Regional cybersecurity law (i.e. New York, California, Singapore): 12%
- Other - Write In: 7%

**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.
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 77% respectively, but RPG usage has skyrocketed. This may be a result of the ability to now use free-form RPG.

With the uptick of RPG, SQL dropped slightly by 3 points. CLP continues to rise at 65%, and Java dropped by 5 points to 40%.

The number of users for other, more traditional development languages stayed very steady, although Python did see a rise of 4 points to 19%. PHP continues to hold steady at 20% even with all of the changes that have taken place.

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.
Like most of the IT landscape, open source is an ever-evolving area. IBM i has made a big push to ensure more open source options are available, which can be seen in the growing number of open source tools being deployed on IBM i. In fact, around 20% of respondents are doing things in a fairly open way.

Key insights to note are the 5 point increase for Git to 20%, and the 6 point increase in Bash usage to 13%. It’s notable that Bash users need some level of UNIX knowledge to use the tool properly. Appearing on the survey for the first time were Jenkins and Ansible coming in at 7% and 6%, respectively. These are something to keep an eye on.

Whether your company has a policy embracing open source or not, you’re most likely using open source in some capacity.

Which open source tools are you using for IBM i apps?

<table>
<thead>
<tr>
<th>Tool</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Apache HTTP Server</td>
<td>65%</td>
</tr>
<tr>
<td>Apache Tomcat</td>
<td>24%</td>
</tr>
<tr>
<td>Git</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
</tr>
<tr>
<td>Front-end JS frameworks</td>
<td>18%</td>
</tr>
<tr>
<td>Open Source Database</td>
<td>15%</td>
</tr>
<tr>
<td>Bash</td>
<td>13%</td>
</tr>
<tr>
<td>Jenkins</td>
<td>7%</td>
</tr>
<tr>
<td>Ansible</td>
<td>6%</td>
</tr>
<tr>
<td>Wordpress</td>
<td>4%</td>
</tr>
<tr>
<td>Nginx</td>
<td>4%</td>
</tr>
<tr>
<td>Node-RED</td>
<td>3%</td>
</tr>
<tr>
<td>Joomla</td>
<td>2%</td>
</tr>
</tbody>
</table>

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](#).
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 big trend towards using RDi. 22% of respondents said that 100% of their developers use RDi, up from 16% in 2021. While 29% of respondents report that they still don’t use RDi, it is a huge change from the 40% that was reported in 2021.

If an organization is looking to onboard new developers, modern techniques must follow. The modernity and efficiency of RDi is essential to attracting new talent and increasing productivity. RDi makes it easier to collaborate, which is key in today’s largely work-from-home environment. It also allows users to transition away from older tools to adopt a more modern and progressive development approach.

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

- Yes, we own and 100% of our developers use it (22%)
- Yes, we own and at least 50% of our developers use it (29%)
- Yes, we own but less than 50% of our developers use it (9%)
- Yes, we own but no one uses it (17%)
- No (23%)

**RECOMMENDATION:**

RDi is a 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.
When asked, “Does your IBM i run fully unattended after working hours?”, 75% of respondents said yes. In 2021, we speculated that the increase in working from home because of COVID-19 could turn the automation dial to full speed. This prediction turned out to be spot on and we expect this to trend upward as we continue to finesse the way we work.

With the huge increase towards IBM i running unattended, especially after working hours, it’s encouraging to note the decrease to only one quarter of respondents who report that their IBM i operations are attended after normal working hours.

Although 33% of respondents noted IT and business automation as a top concern, we have also seen an uptick in interest in robotic process automation (RPA). RPA can be used in conjunction with IBM i automation by using rule-based technology so that you can “set it and forget it” while easily being able to make tweaks as your business needs.

IBM has been working towards deployment and configuration automation solutions that would be extremely beneficial for customers with multiple instances of IBM i.

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 HelpSystems 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.
Unsurprisingly, 59% of our respondents this year cited high availability/disaster recovery as a top concern when planning their IT environment. Although a low percentage, 2% of respondents still don’t have a system in place to recover from a disaster. We have to ask the same question we asked last year—how can an organization realistically have no system whatsoever in place to recover from a disaster?

We know that many organizations have multiple systems in place to recover from a disaster, which is absolutely a best practice. If high availability fails, then they still have tape to fall back on. Some things are too important to put all your eggs into one basket. That being said, 16% of organizations still solely use tape.

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.

When we talk about modernization, we have a tendency 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?

<table>
<thead>
<tr>
<th>Recover from high availability</th>
<th>59%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recover from tape</td>
<td>50%</td>
</tr>
<tr>
<td>Recover from data backed up to disk (VTL)</td>
<td>33%</td>
</tr>
<tr>
<td>Recover from cloud backups</td>
<td>15%</td>
</tr>
<tr>
<td>None</td>
<td>2%</td>
</tr>
</tbody>
</table>

What type high availability technology do you use with IBM i?

<table>
<thead>
<tr>
<th>Software</th>
<th>66%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>22%</td>
</tr>
<tr>
<td>None</td>
<td>29%</td>
</tr>
</tbody>
</table>

IT INITIATIVES & TRENDS:

HIGH AVAILABILITY

Recommendation:
Disaster recovery cannot be left to chance or ignored completely—we are talking directly to the 2% with no disaster recovery systems now! HelpSystems 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

Business as usual looks different these days, and that likely means supporting remote operations. Along with this comes a new set of challenges, which most notably include security concerns with remote access at 46% and supporting employees working from home at 42%.

To offset these challenges, IT and security priorities may have shifted over the past two years to ensure new day-to-day operations are running smoothly. These top changes include automating manual processes at 38%, leveraging IBM i Access Client Solutions at 34%, and implementing layered security around VPN access at 32%. Based on responses earlier in the survey, it’s no surprise automation took the top spot.

Perhaps the most surprising was that one third of respondents said they made no changes at all to support remote operations. It’s possible they were already supporting a large volume of remote employees or operations and had the capabilities to support the further shift, but still a fascinating insight to find.

Which 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?
Core business applications are intrinsically important to an organization’s operations. Those applications need to be available and run at speed, and organizations need to be certain they are going to function as they should.

Given that IBM i is known for its stability and reliability, among other things, it is not surprising to see so many users running the majority of their core business applications on the platform. 70% of respondents use IBM i to run more than half of their core business applications. This speaks to the trust that users have for the IBM i platform.

This year’s results also saw a slight upward trend in the number of users that run between 25% and 50% of their core business applications on IBM i—up to 17%, the highest it has been since we started running this research.

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

- 76–100%: 42%
- 51–75%: 28%
- 25–50%: 17%
- Under 25%: 13%

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. HelpSystems 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

In the eight years of gathering data from the IBM i Marketplace Survey, we’ve seen the clear value users get from IBM i. This is reflected in the fact that nearly one quarter of our respondents plan to increase their IBM i footprint in 2022. From a management perspective, IBM i takes fewer people and has a lower cost of ownership, so it’s not hard to see why users are keen to increase their footprint. 43% of users will continue to run their IBM i environment as is, which speaks to the satisfaction and stability customers are experiencing.

That being said, 23% 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 44%, which is a slight decrease of three points from last year. 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 rose three points to 36% and AIX dropped by the same amount to 6%.

Over time, there isn’t a strong drive for people to move from IBM i as only 5% of respondents plan to migrate all applications from IBM i within 2 years.

What are your plans for the IBM i platform?

43% No change
13% Migrate some applications to a new platform
10% Migrate all applications to a new platform
24% Increase our IBM i footprint
10% Not sure

When will you migrate all applications from IBM i?

7% Not sure
14% More than 5 years
31% Between 2-5 years
48% Within 2 years

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

49% Software as a Service (SaaS/Cloud)
44% Windows
36% Linux
8% Other
6% AIX
1% zOS (Mainframe)

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.
Over the eight years of the IBM i Marketplace Survey, the most consistent finding has been the value that users get from IBM i. 2022 is no exception to the strong and consistent return on investment (ROI) IBM i continues to deliver.

94% of respondents this year believe their IBM i server gives them better ROI than other servers, the highest figure since 2016. In nearly a decade of research, this figure has never dropped below 90%, highlighting that IBM continues to create a platform that delivers such value to its dedicated customer community.

From our data, we know many survey respondents also work with other servers and are well-positioned to provide feedback on which server provides the most value. IBM i is a platform that inspires great loyalty, and this is a trend that will surely continue in future editions of this research.

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

- Yes: 94%
- No: 6%
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 the United States, and a downturn by 19 points from respondents in Latin America. It’s worth noting that the survey was not available in Spanish this year, something that we speculate could have influenced this drop. Manufacturing reclaimed the top seat as the main industry of our respondents this year, with an increase of four points to 18%.

Where are you located?

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>48%</td>
</tr>
<tr>
<td>Latin America</td>
<td>8%</td>
</tr>
<tr>
<td>Canada</td>
<td>4%</td>
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<tr>
<td>Caribbean</td>
<td>1%</td>
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<tr>
<td>Asia Pacific</td>
<td>5%</td>
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<tr>
<td>Middle East &amp; Africa</td>
<td>3%</td>
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<tr>
<td>Australia &amp; New Zealand</td>
<td>2%</td>
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<tr>
<td>Europe</td>
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</tr>
<tr>
<td>Europe</td>
<td>27%</td>
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</tbody>
</table>

What is your organization's primary industry?

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>18%</td>
</tr>
<tr>
<td>Banking/Finance</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>12%</td>
</tr>
<tr>
<td>IT Software Development</td>
<td>11%</td>
</tr>
<tr>
<td>Insurance</td>
<td>9%</td>
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<tr>
<td>Technology</td>
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<tr>
<td>Retail</td>
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<tr>
<td>Distribution</td>
<td>7%</td>
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<tr>
<td>Healthcare</td>
<td>6%</td>
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<tr>
<td>Logistics/Transportation</td>
<td>4%</td>
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<tr>
<td>Government</td>
<td>2%</td>
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<tr>
<td>Utilities</td>
<td>1%</td>
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</table>
DEMOGRAPHICS

This year saw an upward trend in responses from smaller organizations. 50% of respondents work for an organization with less than 499 employees, an increase of 4 points from the previous year. In terms of the job titles of respondents, they largely remained the same with small, 2 point increases from administrators and director/VP titles.

What is your job title?

- Administrator: 24%
- Other (Write-In): 20%
- Developer: 20%
- Manager: 20%
- Director and VP: 10%
- CIO (and other C-level): 6%

How many employees does your organization have?

- Less than 99: 22%
- 100-249: 15%
- 250-499: 13%
- 500-999: 12%
- 1,000-4,999: 17%
- 5,000-9,999: 8%
- 10,000+: 13%
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.

<table>
<thead>
<tr>
<th>Category</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM i Skills</td>
<td>IBM i Talent Retirement Guide, IBM i training courses, IBM i Academy, Manta Technologies, The 400 School, COMMON, COMMON Europe, IBM Education, Partner 400, Central Park Data Systems, System i Developer, iTech Solutions Group, LLC, IBM Tech University Events</td>
</tr>
<tr>
<td>Automation</td>
<td>Robot, Halcyon, Guided Automation Assessment</td>
</tr>
<tr>
<td>Modernization</td>
<td>RDi, Sequel, RPG Toolbox, Fresche, Lansa, Perforce, Profound Logic, Arcad Software, IBM Redbook, State of IBM i Modernization</td>
</tr>
<tr>
<td>Mobility</td>
<td>Asna, Lansa, Zend, HelpSystems Insite, Sequel Web Interface</td>
</tr>
<tr>
<td>Data Growth</td>
<td>Robot Monitor, Robot Space</td>
</tr>
<tr>
<td>Business Intelligence</td>
<td>Sequel Data Access, Sequel Data Warehouse</td>
</tr>
<tr>
<td>Going Paperless</td>
<td>HelpSystems Document &amp; Forms Management</td>
</tr>
<tr>
<td>Capacity Planning/PM400 Replacement</td>
<td>Performance Navigator, How to Replace PM400</td>
</tr>
<tr>
<td>Cloud Infrastructure</td>
<td>IBM i in the Cloud Webinar, IBM Cloud Migration Considerations Webinar, Skytap, Google Cloud, IBM Cloud for Power</td>
</tr>
<tr>
<td>Industry Insights</td>
<td>Considering Leaving IBM Platforms?, IBM i Roadmap by IBM, Open Source Support on IBM i</td>
</tr>
</tbody>
</table>