



2016

STATE OF IBM i
MODERNIZATION

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EXECUTIVE SUMMARY



In December of 2015, Profound Logic Software reached out to the IBM i community to take part in the “State of IBM i Modernization” survey, and more than 420 professionals responded. The goal of the survey was to get a clearer picture of the state of IBM i use in today’s businesses. The survey was broken up into three sections: Current state of IBM i; Current attitudes toward IBM i; and, Future of IBM i in the business.

The survey asked respondents a range of questions based on their role in the business. For instance, people who identified as a “technical” employee (such as a developer) were asked a series of technical questions about how the IBM i is used in the business. Those who identified as “both business and technical (such as an IT manager) were asked questions pertaining to both how the IBM i is used from a technical perspective and the business impact of the platform. And those who identified as a “business” oriented employee (such as a VP or C-level user) were asked questions that focused specifically on the impact of IBM i on the business. The analysis of the findings was conducted by IBM i Champions and experts, including *Scott Klement, Brian May and Ted Holt*.

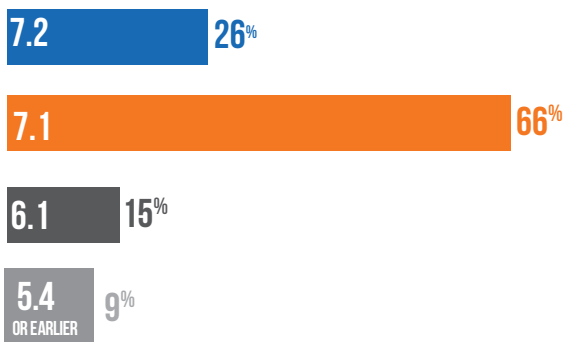
The overall findings of the survey are positive. The majority of respondents believe the IBM i has a bright future in their business, and have identified ways to improve the use of the platform, including modernizing green-screen applications and using the most up-to-date versions of the OS and RPG code. The survey did uncover a sense of unease within the IBM i community, however. Developers are concerned that the value of IBM i isn’t well known with the decision-makers in their organization. Those who identified as business users stated that a lack of budget for the IBM i was the number one thing holding them back from modernizing the platform. And all job roles identified a lack of resources/developers and no native IBM i GUI as roadblocks to modernization. Despite this, the majority of respondents state that they will be modernizing their IBM i applications, code or enterprise environment in 2016, and that their development team will stay the same or will increase in 2016.

We hope that the findings of this study are useful to you and your organization’s modernization plans for the IBM i in 2016!

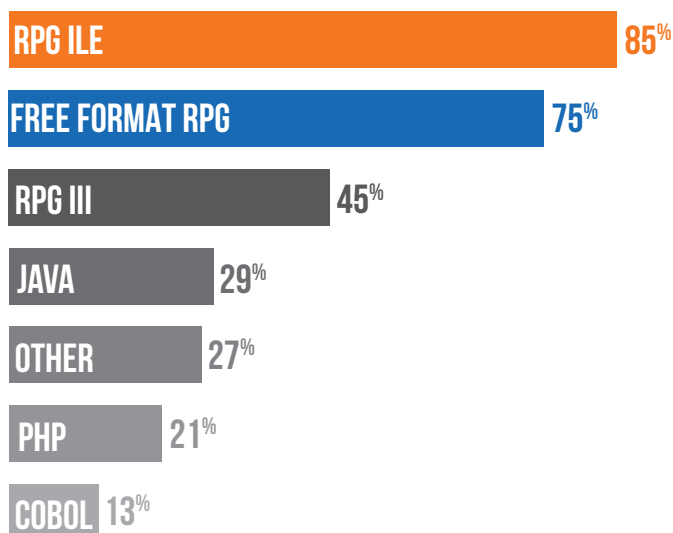
CURRENT STATE OF IBM i



What version of IBM i are you using?



Which programming languages are you currently using in your development?



NEXT STEP >

Since IBM no longer supports IBM i 6.1 and below, now is a good time to transition to a newer version of the platform. Staying on unsupported versions leaves your applications vulnerable to risks, stunts development growth, and contributes to the overall negative perception of the platform.

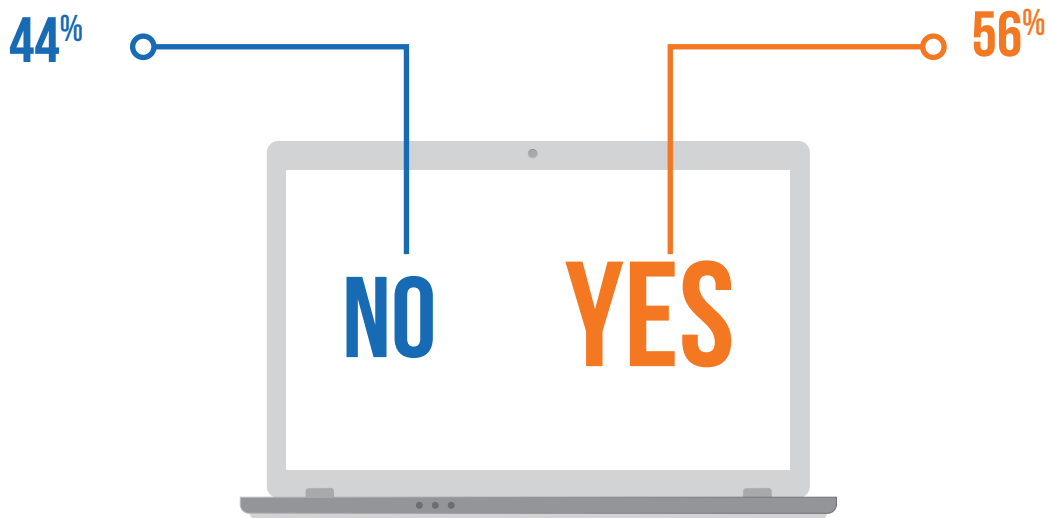
FINDINGS:

- Although most are on version 7.1 and later, there are still an alarming number of shops on older operating systems.
- Majority of participants are currently using RPG ILE and Free Format RPG in their development.
- About half of respondents still utilize RPG III.
- PHP becoming more mainstream for IBM i shops, while COBOL still has a presence.
- Newer languages, such as Ruby, Python, and Node.js, are not widely adopted yet.

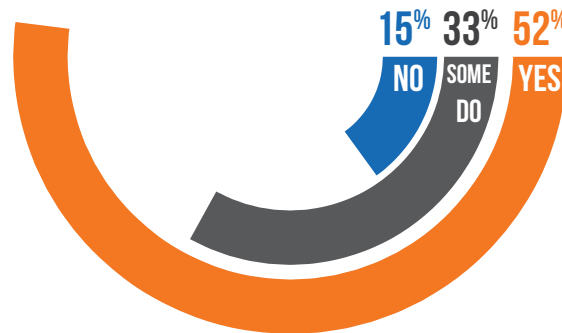
CURRENT STATE OF IBM i



Are you currently using third party software packages on IBM i?



Do these packaged solutions use a green screen interface?



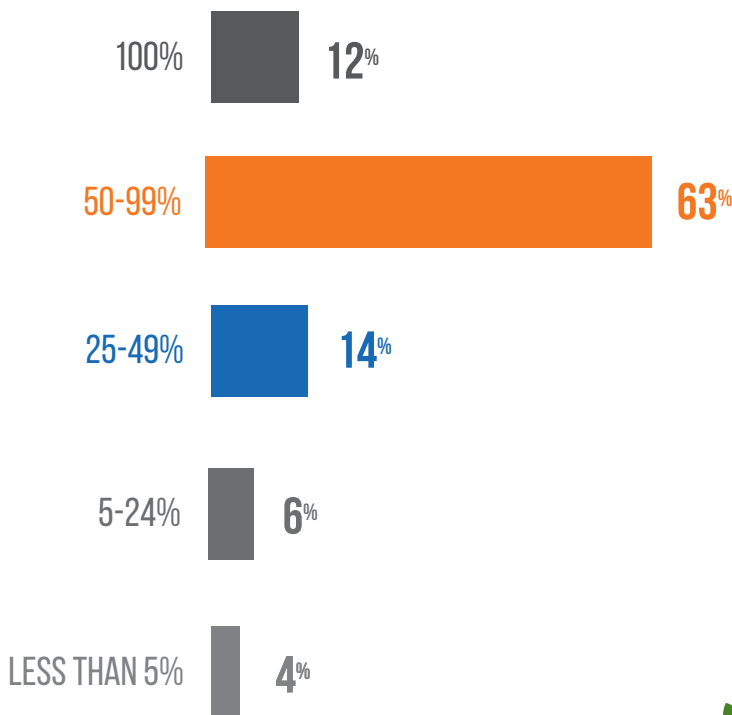
FINDINGS:

A large percentage of IBM i users are running third party packaged applications like JD Edwards, but are using the software with an outdated green-screen interface.

CURRENT STATE OF IBM i



What percentage of your business applications run on the IBM i platform?

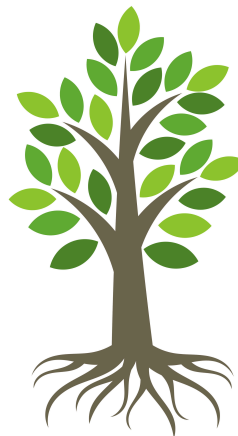


FINDINGS:

The vast majority of respondents to the survey state that over half of their business' applications run on the IBM i platform, even if their applications and OS version are outdated.

RECOMMENDATION >

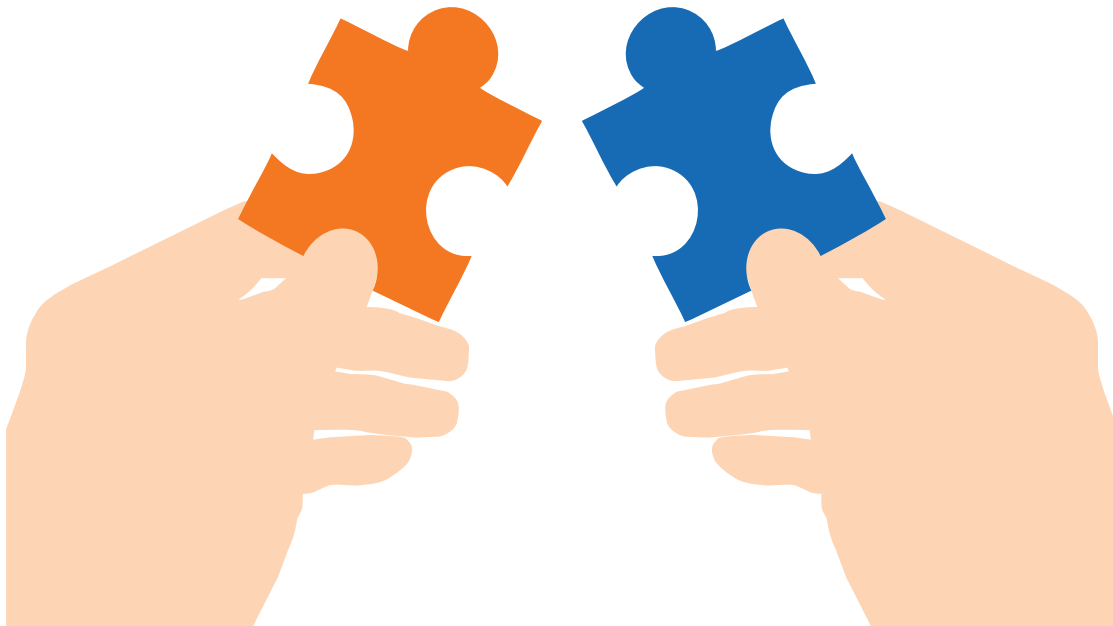
Before undertaking a modernization project, measure how far-reaching your IBM i's roots are by taking an inventory of the business systems, applications, and users that will be impacted. This will help you determine the right course of action and avoid significant disruption to your business.



CURRENT ATTITUDES TOWARDS IBM i



What is the single biggest challenge associated with your IBM i right now?



MOST COMMON

- Lack of RPG programmers
- Outdated UI
- Poor perception of platform by management/public/end-users
- Modernization

NOTEABLE

- Compatibility with other languages/platforms
- Budget/resources constraint
- Complacent developers
- Outdated code

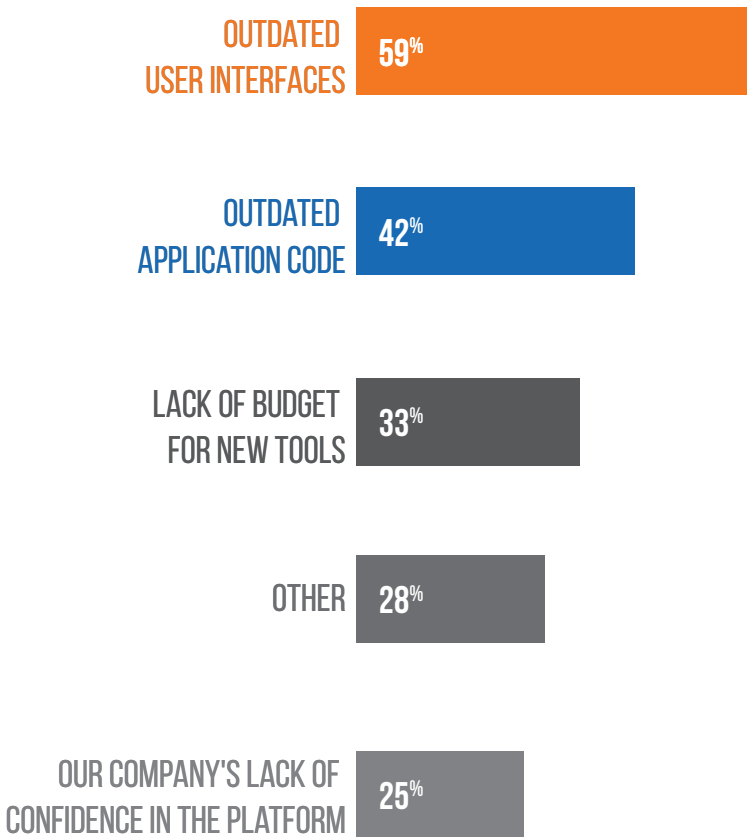
NEXT STEP >

The perception that the IBM i is an outdated “legacy” platform can be a significant challenge to businesses that want to modernize aspects of the platform, such as application interfaces. Learn how to counter these objections [HERE](#).

CURRENT ATTITUDES TOWARDS IBM i



What are your top concerns about the IBM i platform?



FINDINGS:

Managing outdated application interfaces and code is a significant concern among technical users.

Technical users also stated that their company's lack of confidence in the platform is a top concern.

Business users acknowledge that outdated interfaces are a concern, but they are saddled with lack of budget for tools to address that challenge.

Both roles listed under "other" concerns:

- Lack of programmers
- "IBM doesn't believe in it", "IBM might kill it", "IBM lack of focus" (lack of confidence in the platform)
- Public perception

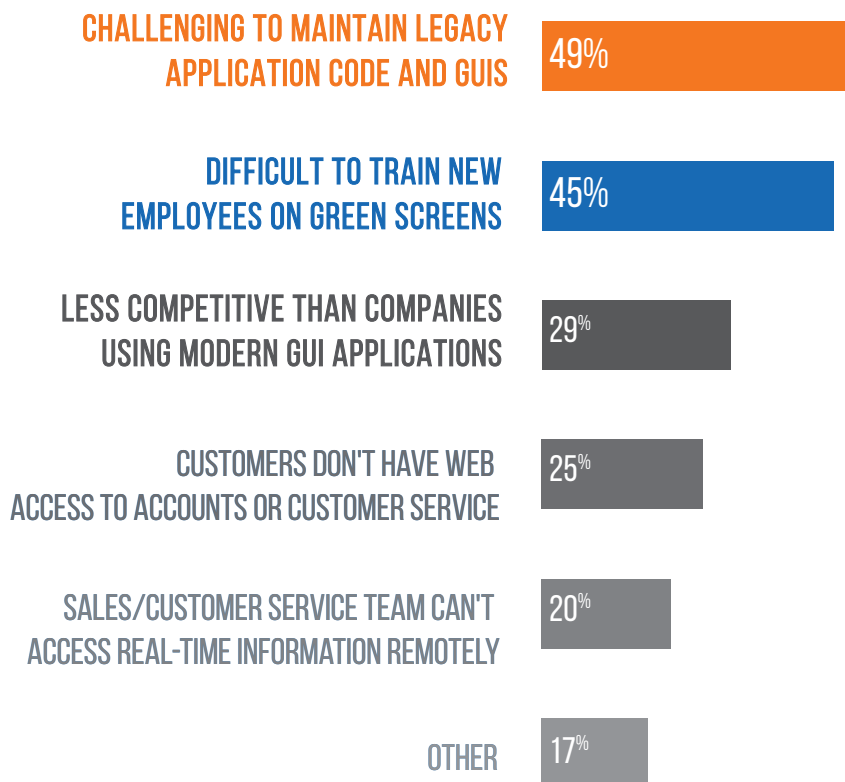
NEXT STEP >

Companies who are concerned about the future of the platform will be relieved to learn that IBM has released a 10 year roadmap for IBM i, as outlined by IBM i Chief Architect Steve Will [HERE](#).

CURRENT ATTITUDES TOWARDS IBM i



Have you experienced any of the following effects of legacy applications/systems?



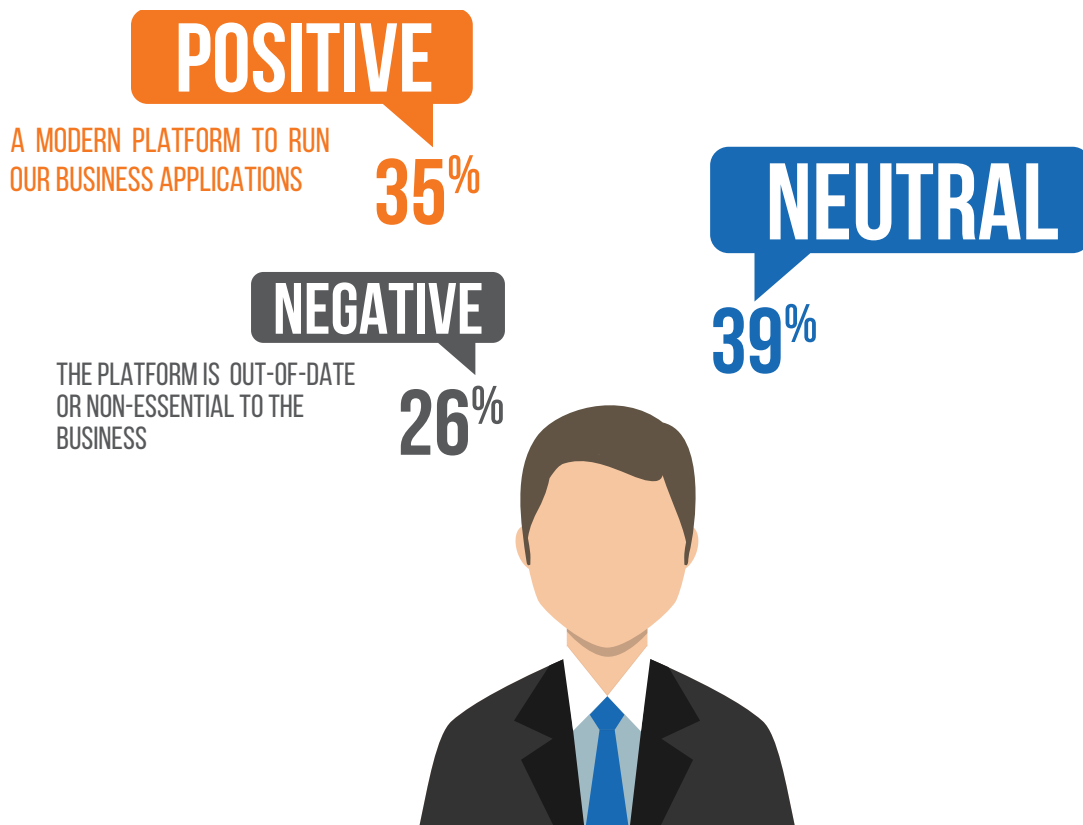
FINDINGS:

The professionals who took the survey specified that their greatest challenges associated with the use of legacy IBM i applications involve the impact older systems have on training new employees, staying competitive, and maintaining legacy applications. Nearly half of the respondents stated that legacy applications have a negative impact on customer service, and one quarter stated that they pose a challenge to supporting remote teams with real-time data.

CURRENT ATTITUDES TOWARDS IBM i



What is the upper-management view of IBM i in your business?



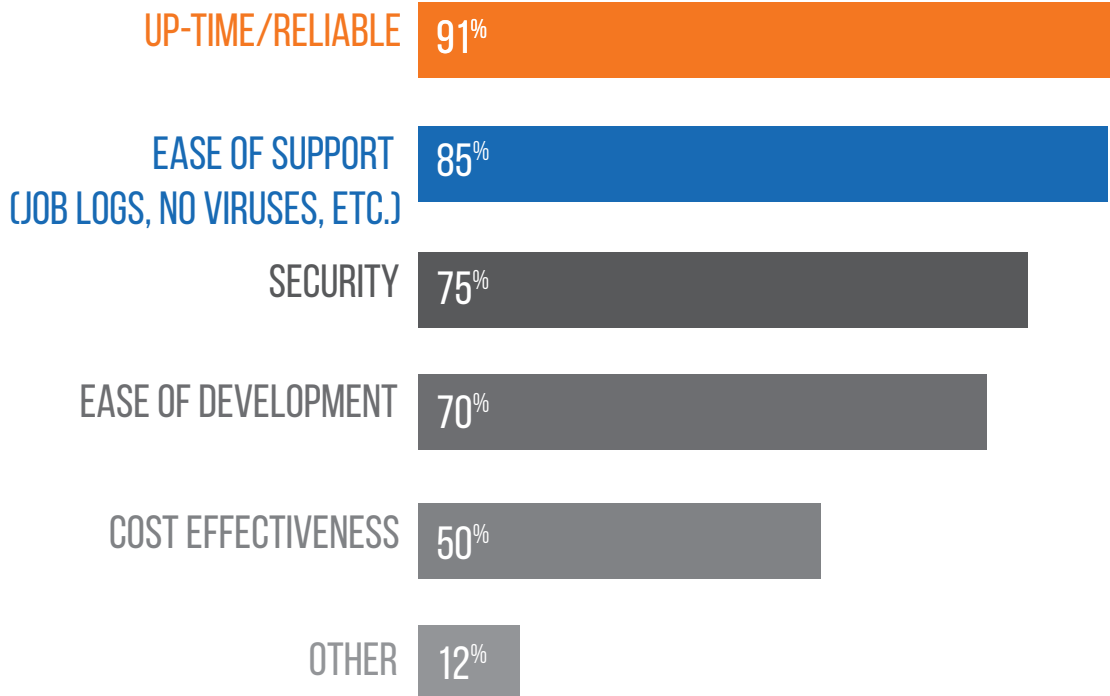
Only **35% feel upper-management** have a positive view of the IBM i.

26% have a negative view, which is an alarming figure given that the majority of respondents said at least 50% of their business runs on the IBM i

CURRENT ATTITUDES TOWARDS IBM i



What are the qualities you appreciate about the IBM i platform as a developer?



FINDINGS:

Despite the perception of IBM i as being “legacy” or outdated, the majority of technical users believe that the IBM i is an extremely reliable, secure and easy-to-support platform.

NEXT STEP >

A recent ITG Management study compared the uptime, reliability and total cost of ownership of IBM i to that of Oracle and Microsoft. The results might surprise you! Learn more [HERE](#).

FUTURE OF IBM i IN THE BUSINESS



What will your IBM i development team look like in 2016?

24%

HIRING NEW DEVELOPERS



68%

SIZE OF TEAM WILL
REMAIN THE SAME



14%

DOWNSIZING TEAM



FINDINGS:

While a portion of survey respondents expressed concerns about finding new developers for the platform, the majority stated that the size of their team would remain the same or that it would expand in 2016.

Additionally, 16% of the respondents indicated that their businesses will outsource IBM i development in the coming year.

NEXT STEP >

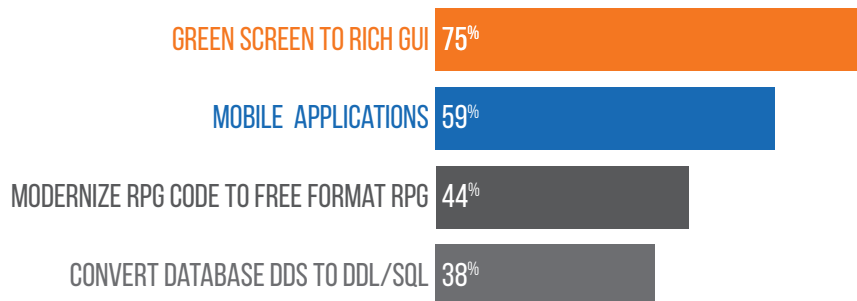
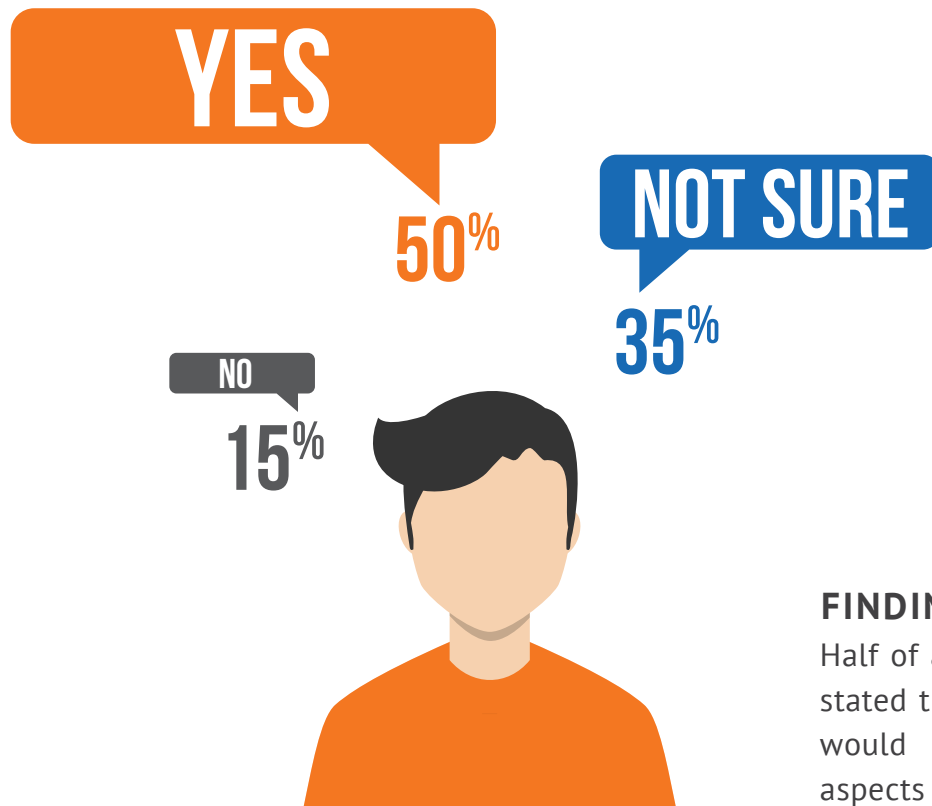
Transitioning your development to use modern RPG code, including Free-Format RPG, will make it easier to hire and train developers for your IBM i business.

[Watch an on-demand Webinar to learn more.](#)

FUTURE OF IBM i IN THE BUSINESS



Do you plan on modernizing your IBM i in 2016?



FINDINGS:

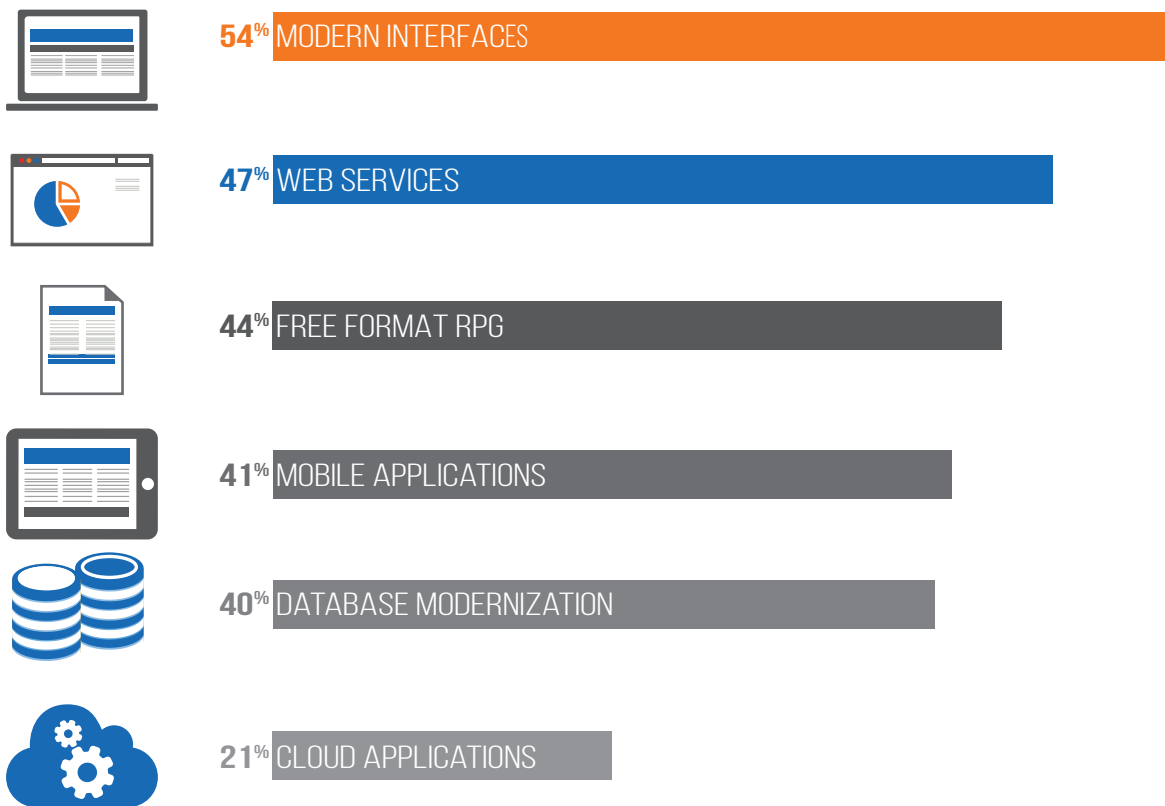
Half of all respondents stated that they would modernize aspects of their IBM i platform in 2016.

Additionally, 16% of the respondents indicated that their businesses will outsource IBM i development in the coming year.

FUTURE OF IBM i IN THE BUSINESS



Which IBM i modernization projects are you planning to start in 2016?



FINDINGS:

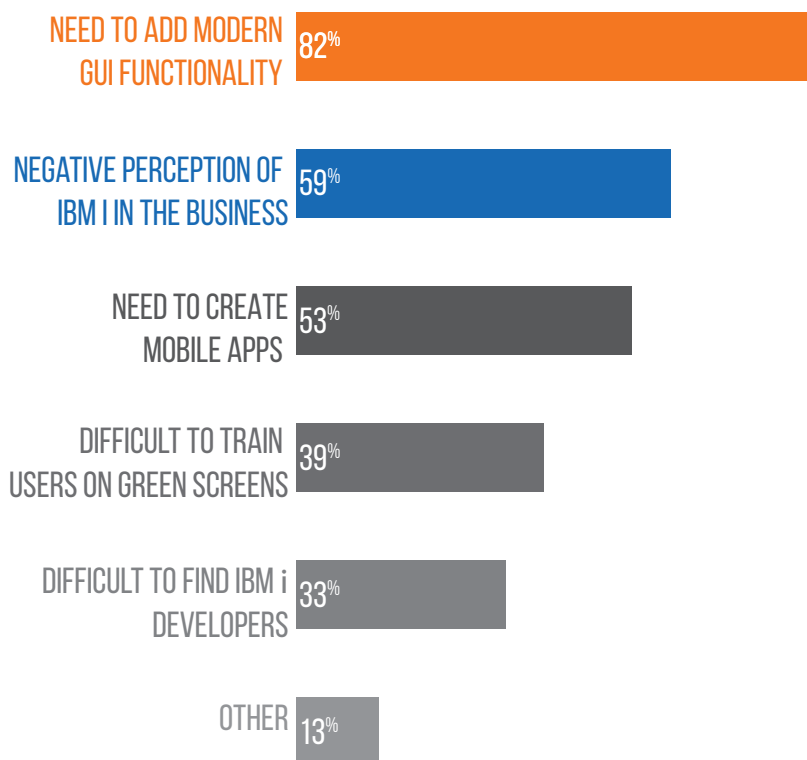
Out of the companies we surveyed, one half indicated that they will definitely modernize their systems and applications in 2016. GUI modernization will be the top focus, followed by implementing web services, modernizing RPG code, and mobile development. IBM i shops will continue to focus on maintaining existing applications, and less than a quarter are considering Cloud as a priority in the coming year.

Respondents also indicated that managing and modernizing 3rd party packaged applications will play a role in their 2016 modernization plans.

FUTURE OF IBM i IN THE BUSINESS



What are your reasons for modernizing your IBM i environment?



“OTHER” RESPONSES INCLUDE:

“To provide users new features, functionality, and usability to improve user productivity.”

“To stay competitive.”

“Keep technology current for many reasons, including security, support, users’ needs.”

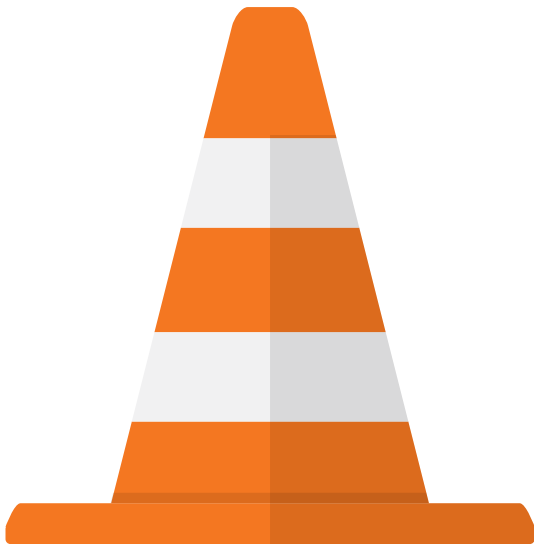
FINDINGS:

A negative perception of the IBM i platform is a major driver for modernization, as is the need for mobile applications. But lack of modern functionality in existing green screens is overwhelmingly the top reason to explore modernization in the companies we surveyed.

FUTURE OF IBM i IN THE BUSINESS



What's holding you back from modernizing your IBM i?



- ✓ No native IBM i GUI
- ✓ Lack of time/resources
- ✓ Management objections
- ✓ Cost

FINDINGS:

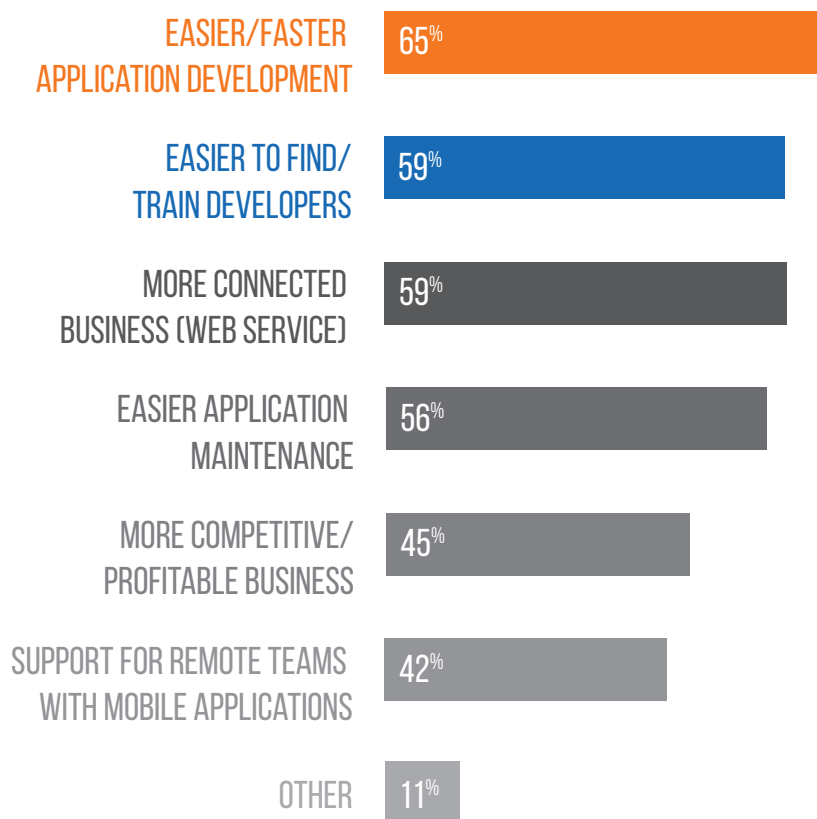
Developers and IT professionals stated that overcoming business management objectives is a major challenge to modernization. As a result, IT Management can actually jeopardize the lifespan of IBM i in their business simply because of their lack of familiarity with the platform and by not adopting modern standards.

Alternately, those who identified as business management (IT Directors, VPs and C-level) indicated that lack of budget was the reason why they have not approved IBM i modernization projects.

FUTURE OF IBM i IN THE BUSINESS



How would a modern IBM i environment improve your business?



FINDINGS:

The concern about the potential loss of RPG developers has been reiterated several times throughout this survey. Interestingly, the results of the survey also demonstrate that a modern IBM i development environment will make it easier to find and train developers.

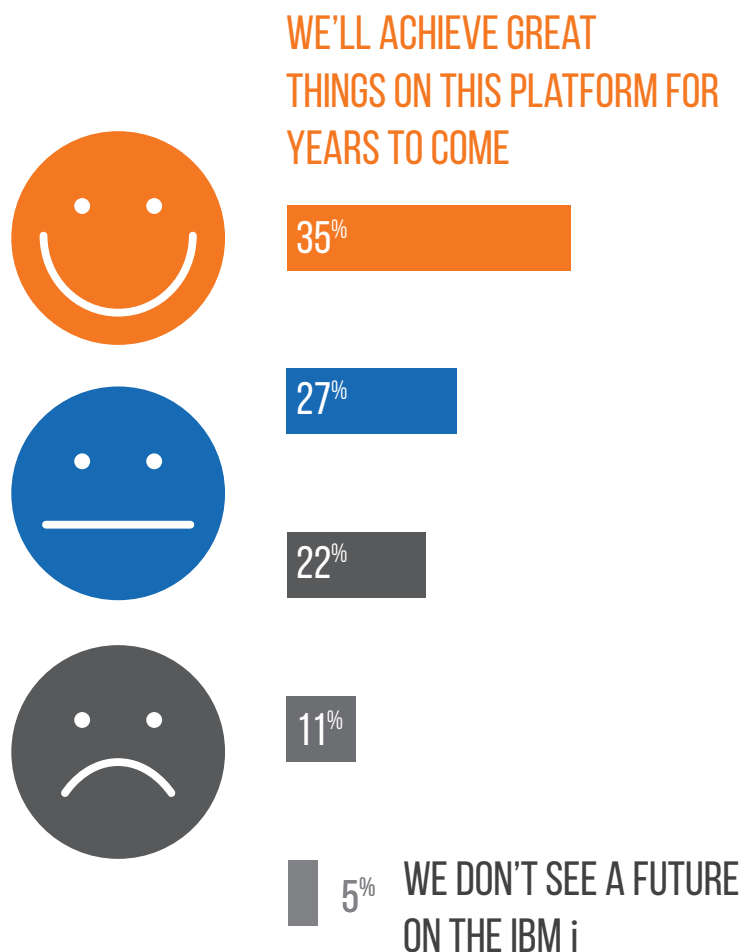
Likewise, respondents indicated that a modern IBM i system would make application development and maintenance easier.

A significant portion of the responses also indicate that a modern IBM i environment would result in a more connected, responsive and competitive business.

FUTURE OF IBM i IN THE BUSINESS



How optimistic are you about the future of the IBM i in your business?



FINDINGS:

Respondents were asked about the future outlook for IBM i development in their business.

Despite concerns about finding or retaining, RPG developers, and the negative perception the platform may have with non-developers, the responses to this question were mostly positive.

Over 60% of the respondents believe their IBM i has a bright future, while 16% believe that the platform has a limited or no future in their business.



CONCLUSION

This survey revealed several interesting trends. While the future of the IBM i seems to be on everyone's mind, the responses in this survey indicated that the overall outlook for IBM i in 2016 is "**cautiously optimistic**". Most respondents agreed that the platform, while not without its challenges, is incredibly **stable, reliable, secure, and capable of supporting a modern business.**



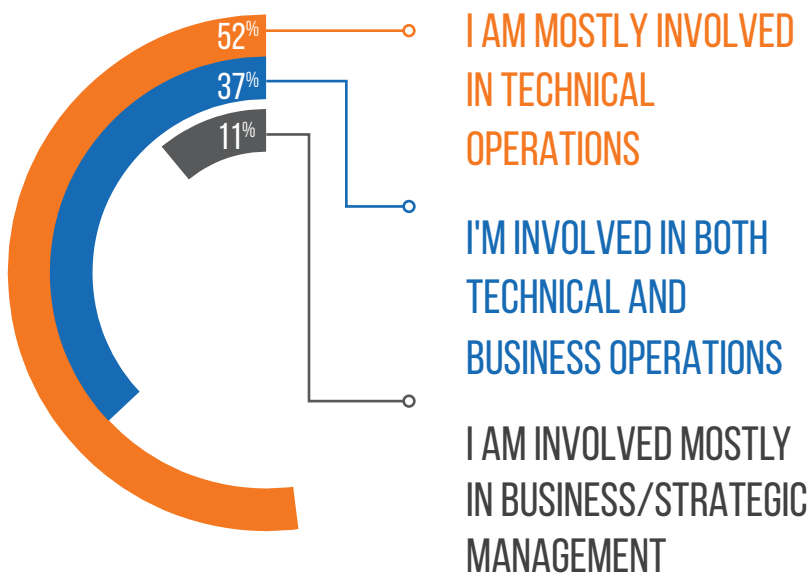
The majority of respondents indicated that modernization of some aspect of their legacy IBM i systems is *necessary for continued success* on the platform. The benefits of modernization - including converting to web-based applications, free-format RPG code, and SQL databases - were varied, and include more productive end-users and a more competitive business.

Interestingly, the greatest challenges to the future of the IBM i have little to do with the platform, but with its *perception*. Most developers who took the survey indicated that their *toughest challenge to modernization is upper-management* who view the platform as "legacy" and outdated. Respondents who identify as business users and management stated that their greatest roadblock to modernization is lack of budget for tools. It's likely that these two responses are linked, and that budget is being withheld due to the negative perception of IBM i in the business. Based on the *positive view of IBM i by the majority of its users* in this survey, it's clear that the *benefits of the IBM i as a business platform is not being adequately communicated to decision-makers*.

Finally, one of the greatest concerns felt by both business users and IT is the impending *lack of RPG developers* and an aging development pool. Given this concern, it would be wise for businesses on the IBM i to *invest in the future of the platform* by also investing in new developers who are familiar with both modern RPG (including Free-Format RPG), and modern languages

ABOUT THE SURVEY

The 'State of IBM i Modernization' survey ran through December 2015, and was promoted through email, Website ads, and articles in trade publications such as IT Jungle and MC Press Online. The goal of the survey was to take the "temperature" of the current attitude toward the platform in businesses, and what, if any, plans the respondent's business have for modernizing the platform.



426 professionals responded to the survey. 52% of respondents identified as being mainly involved in development or technical operations regarding the IBM i. 37% identified themselves as being involved in both technical and business operations, and 11% identified themselves as being mainly involved in business and strategic management.

When asked about their role in the software purchasing process, the majority of respondents indicated that they were an "influencer" (59%), followed by "decision-maker" (24%), and "no role" (17%).




59% INFLUENCER



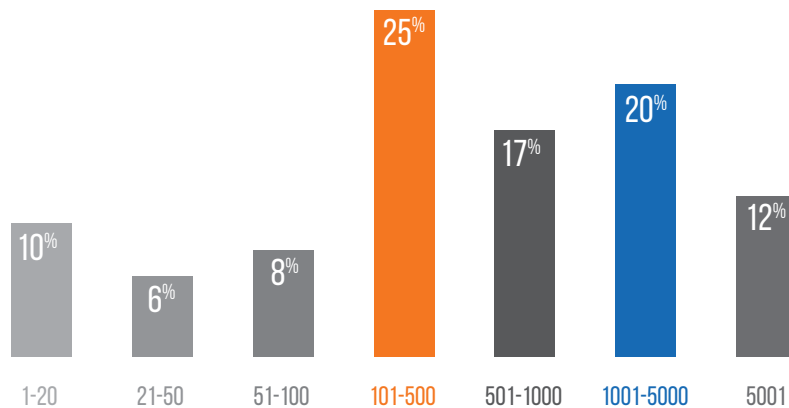
24% DECISION-MAKER



17% NO ROLE



One half of all respondents fell into the SMB category, with 24% coming from companies with 1-100 employees, and 26% with 100-500 employees. 17% indicated they came from a company with 500-1000 employees, and 33% from companies with 1000-5000+ employees.



ABOUT PROFOUND LOGIC SOFTWARE

At **Profound Logic Software**, our mission is to provide innovative, comprehensive, and native solutions for IBM i application development and modernization. For over 15 years, we've helped companies around the world breathe new life into their RPG applications with modern interfaces, deploy mobile applications, and extend the lifespan of their IBM i systems.

Our focus on innovation resulted in the first browser-based visual designer for RPG application development and the most mature handler available for RPG Open Access - the feature that makes truly modern RPG applications possible. We employ the most talented developers in the industry to meet the unique modernization needs of businesses running on the IBM i.

Profound Logic has offices in Ohio, California, and Mississippi, in addition to partners located around the world. Learn more about our products and services at www.profoundlogic.com or contact us at 877-224-7768.

To start modernizing your IBM i applications today, [download a Profound UI trial](#).

For questions regarding this survey, please contact info@profoundlogic.com.

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