

# MANAGING THE SOFTWARE AUDIT: 2022 SURVEY ON ENTERPRISE SOFTWARE LICENSING AND AUDIT TRENDS

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## OVERVIEW

Coming out of the pandemic, and faced with an uncertain economy, many software vendors have been looking for sources of additional revenue, and they have found it—through customer software audits. These software audits have become a big business, serviced by prominent accounting and consulting firms on behalf of vendors, and often incurring millions of dollars of extra charges to customers.

Software vendors have a right to ensure they are being compensated for the systems and services they build, provide, and maintain to their customers. The challenge to enterprises is software compliance can be complicated with services or capacity engaged that is unknown to IT or business users. Examples of non-compliance may include a purchased license tied to a specific application that is being used for a different application; or licenses restricted to internal-business-use-only where access has been opened to external customers.

To better understand the scope of software audits, as well as the costs incurred, Unisphere Research, a division of Information Today, Inc., surveyed the readership of its flagship publication, Database Trends & Applications, which consisted of database managers, developers, CIOs, and IT directors. The survey, which sought views and experiences with software licensing and audits, was conducted in partnership with LicenseFortress. A total of 283 usable responses were received, of which 155, or 69% of survey respondents, reported having been audited within the past three years, and 79% reported having been subject to a software audit within past five years.

Many leading vendors maintain comprehensive controls over licensing rights and responsibilities outlined in their contracts. They may require customers to support and run scripts that monitor usage—and may also invasively track other parts of the infrastructure. The terms may change with the purchase of additional licenses, or at contract renewal time. In addition,

there is the possibility that second-tier software vendors may get acquired by firms that seek to play hardball with licenses, just as has been the case with so-called “patent trolls” that aggressively seek monetary compensation for what they claim is unauthorized use of software.

### Survey Highlights:

- Moving to the cloud has not alleviated issues or concerns with software licensing and audits. Close to eight in ten enterprises report software compliance issues have either increased or remained the same after moving to the cloud.
- More than half of enterprises in this survey report being audited by one or more software vendors. Of respondents reporting audits within the past three years, Microsoft was the most frequently cited vendor requesting audits. Activating features outside of original contracts and confusion over virtualization are creating the most license issues.
- Companies being audited by Oracle incurred the greatest costs. There are hidden costs as well, even if the vendor does not levy additional charges. Most audit processes required at least three employees, and 40% of companies had their CIOs involved with the process.
- A majority of audited companies did not seek outside assistance to guide them through the process. While many depend on tools or software asset management to support their efforts, a majority fail to keep track of software changes on a continuous basis.

On the following pages are the findings of this survey.

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## SOFTWARE IN THE CLOUD

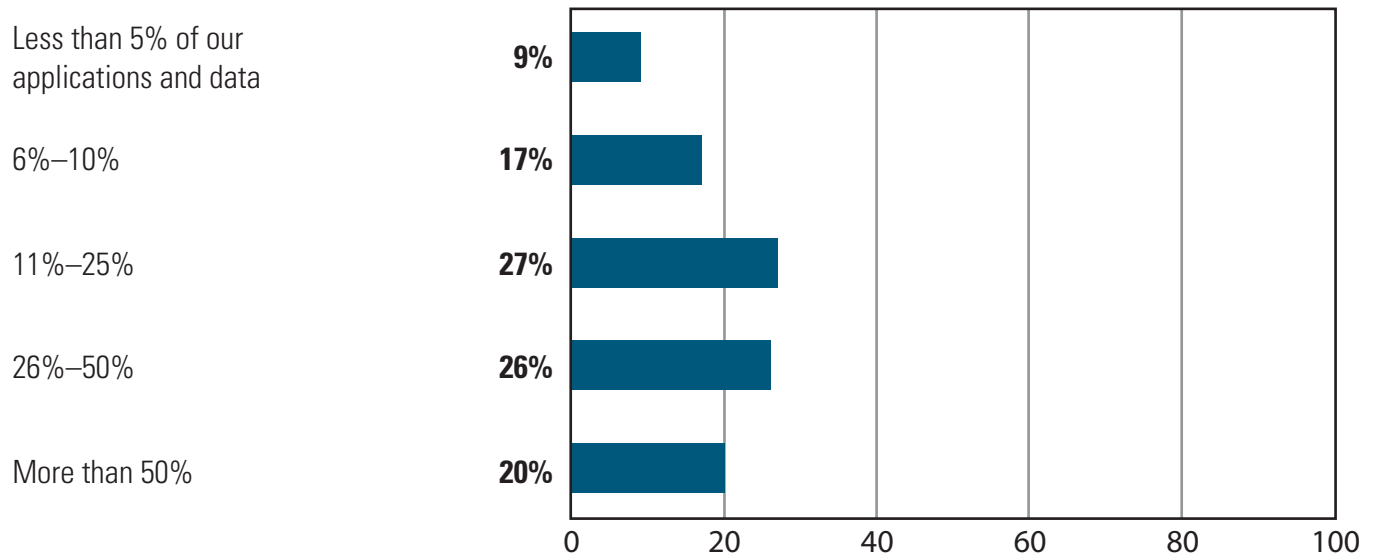
**Moving to the cloud has not alleviated issues or concerns with software licensing and audits. Close to eight in ten enterprises report software compliance issues have either increased or remained the same after moving to the cloud.**

Overall, there's no question that many applications are being moved to the cloud. Close to half, 46%, report having significant amount of applications and data in the cloud (defined as greater than 25%) (see Figure 1).

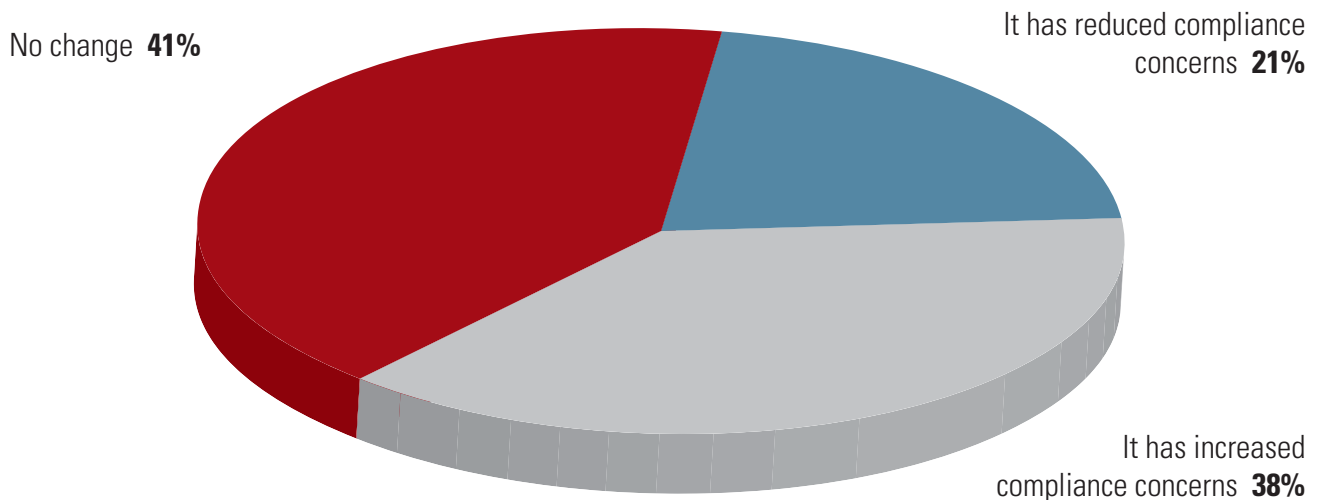
While many applications and data sets have moved to the cloud, respondents reported that there was no appreciable impact

on their software compliance issues. Seventy-nine percent report the move to cloud has not changed their software compliance issues, or, in the case of 38% of respondents, it has increased compliance concerns. Only about one-fifth, 21%, say cloud has reduced their compliance issues (see Figure 2).

**Figure 1: What is the extent of your cloud-based application/database portfolio?**



**Figure 2: Does your approach to software compliance differ for cloud-based applications?**



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## AUDIT FREQUENCY AND ISSUES FOUND

**More than half of enterprises in this survey report being audited by one or more software vendors. Of respondents reporting audits within the past three years, Microsoft was the most frequently cited vendor requesting audits. Activating features outside of original contracts and confusion over virtualization are creating the most license issues.**

About 69% of survey respondents, report having been audited within the past three years, and 79% report having been subject to a software audit within past five years (see Figure 3). For purposes of this survey, we will focus on those reporting more recent audits, or those that have taken place within the past three years.

While at least half of smaller companies with fewer than 250 employees have largely been spared by audits over the past three years, mid-sized companies have been prime targets, even more so than the largest organizations with 1,000 or more employees (see Figure 4).

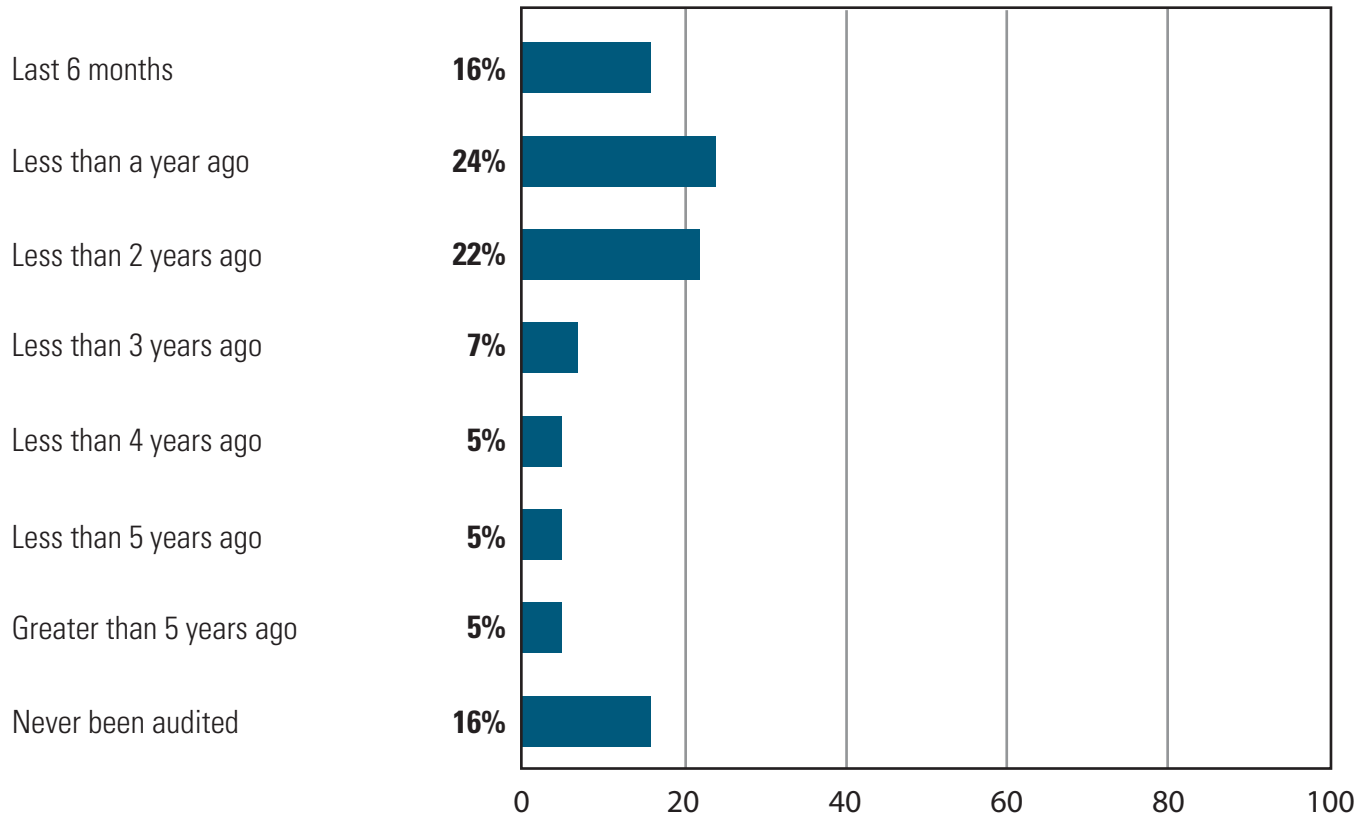
Most audits were conducted by Microsoft, which is not surprising, given the pervasiveness of Microsoft products across the enterprise spectrum (see Figure 5).

Activating unlicensed features, and issues around virtualization are the issues most likely flagged by software

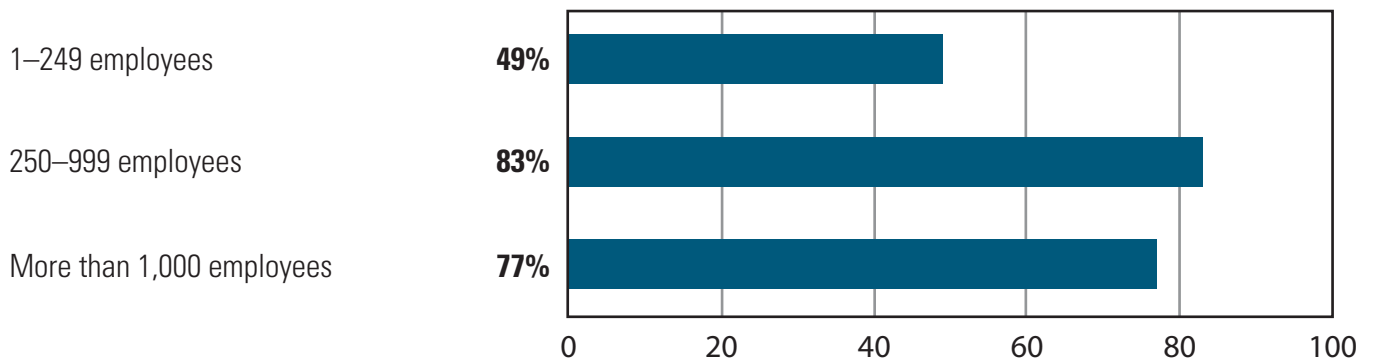
vendors, the survey shows (see Figure 6). This depends on the vendor involved as well. The leading issues encountered with software compliance varied by vendors engaged. While most major vendors mentioned in the survey report their leading issue was associated with virtualization, this ranked second among sites audited by Microsoft, which was more likely to cite used or activated unlicensed features within their solutions (See Figure 7).

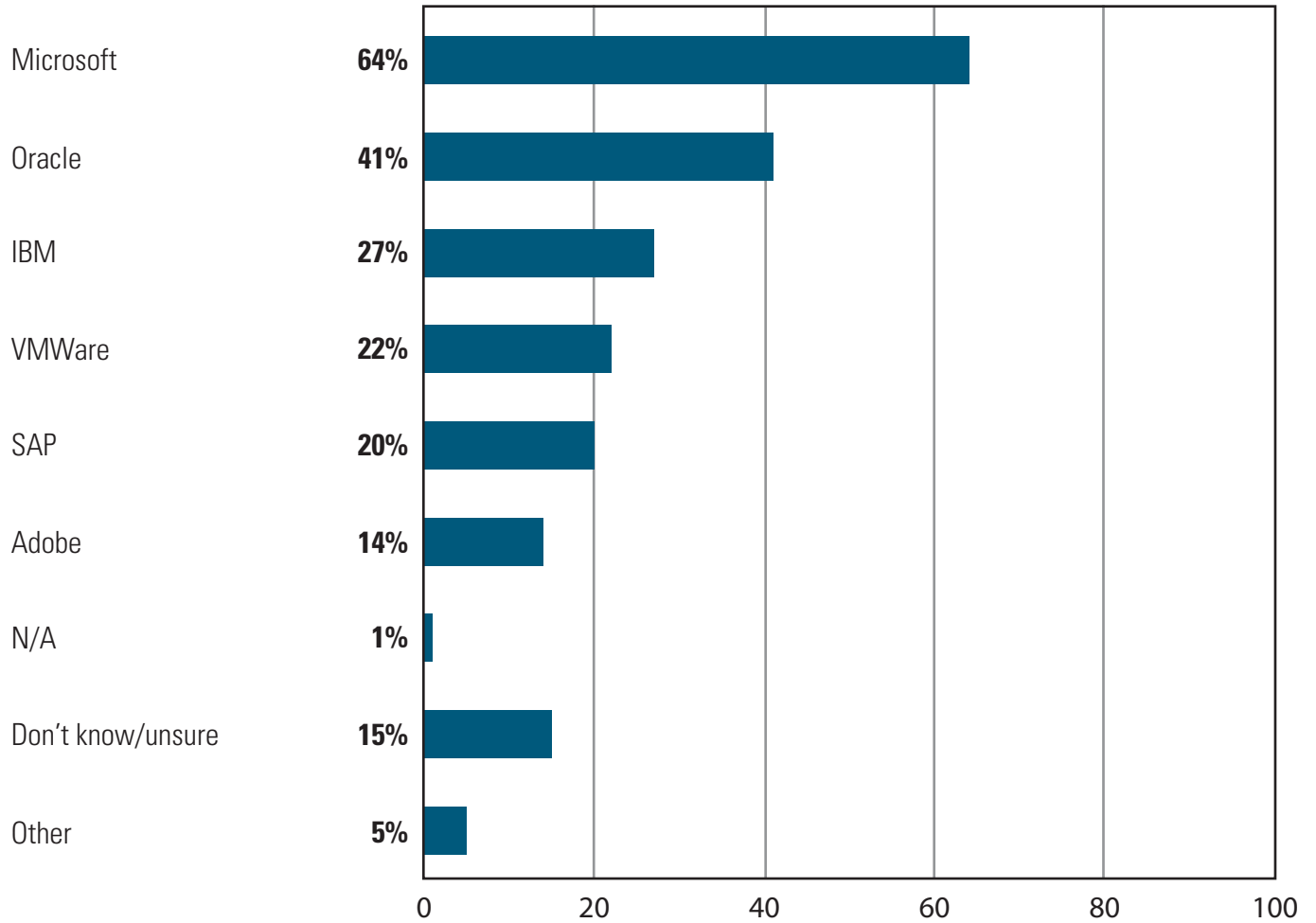
What impressions did vendors make during the audit? In most cases, the encounter was courteous – the majority, 88%, say the tone of the vendor’s representatives was friendly and professional. More than one in 10, however, still encountered hostility or pushiness on the part of the vendor (Figure 8). By major vendor type, IBM and SAP engagements exhibited the most negative experience, while VMware tended to provide the friendliest experience (See Figure 9).

**Figure 3: When was the last time your organization was audited by a vendor for software compliance?**

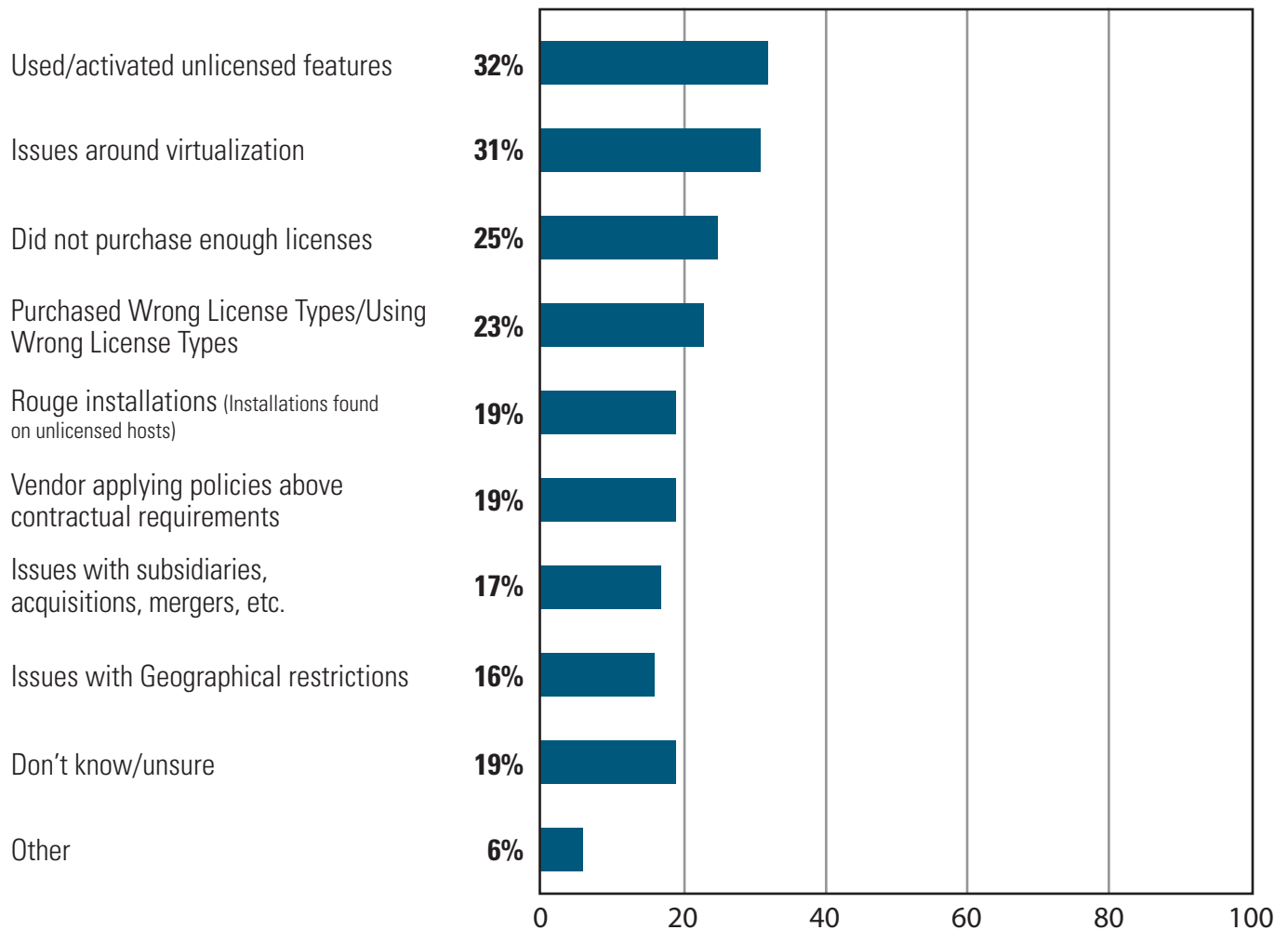


**Figure 4: Audited Over The Last Three Years—By Company Size**



**Figure 5: Which software vendors have audited you in the last 3 years?**



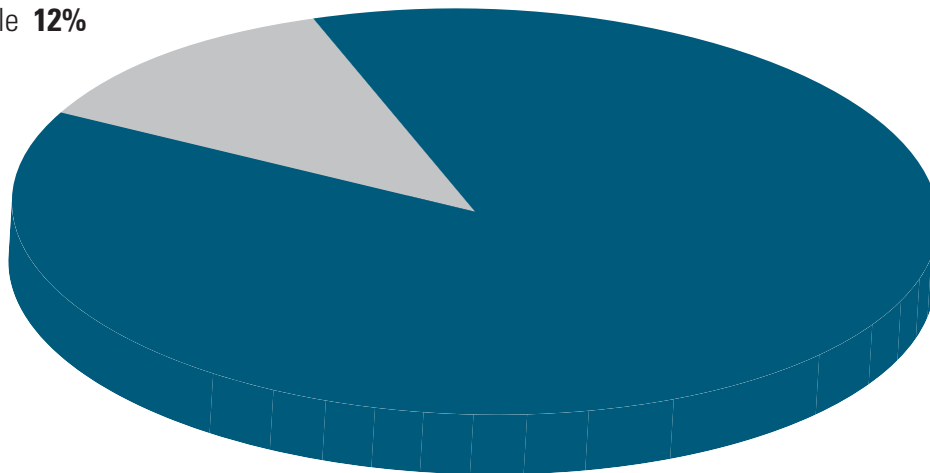
**Figure 6: What types of issues were identified by the vendor?**

### Figure 7: Top 3 Issues—By Vendor Conducting Audit

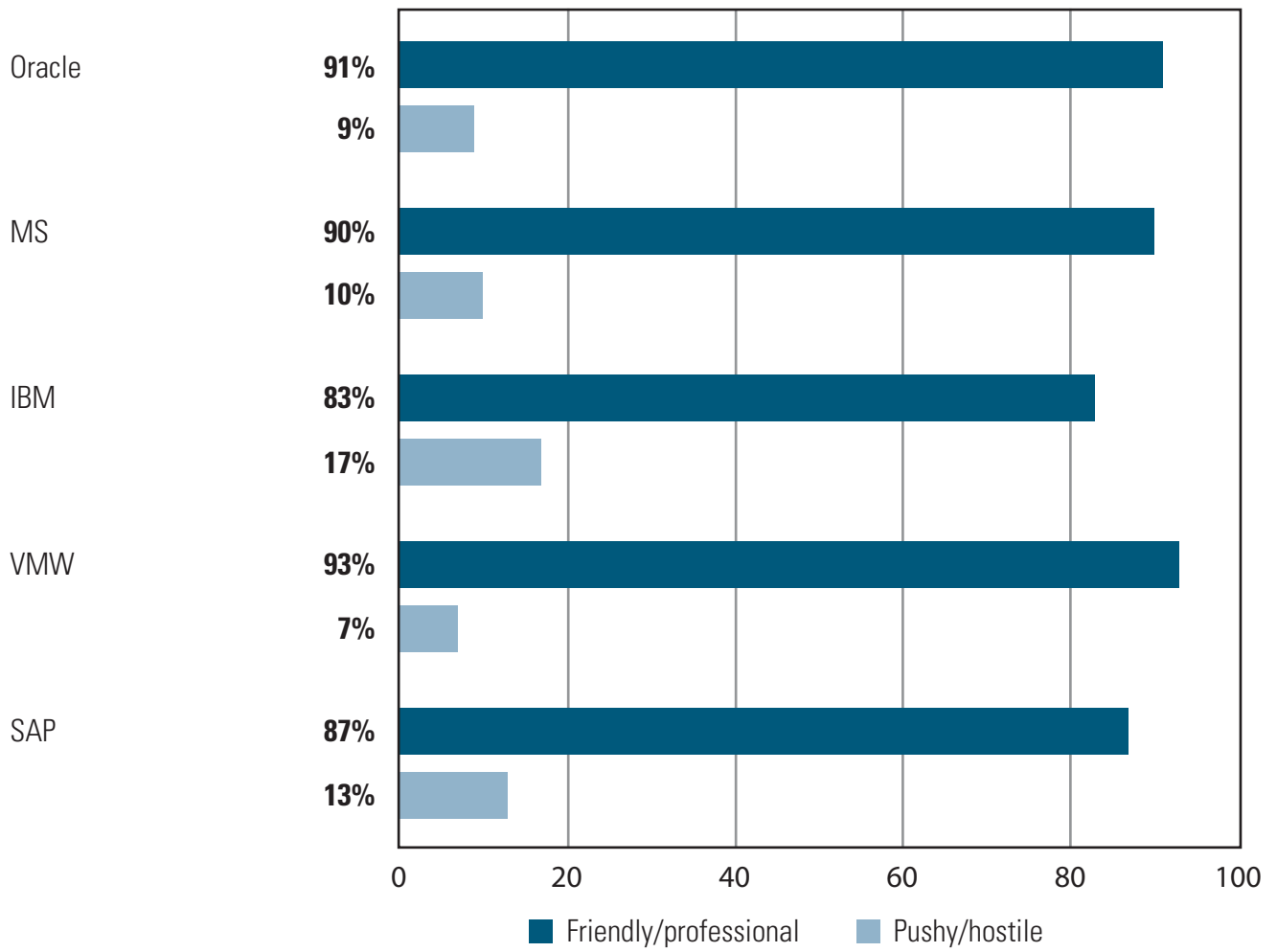
	Oracle	MS	IBM	VMW	SAP
Issues around Virtualization	50% (1)	32% (2)	50% (1)	47% (1)	47% (1)
Used/activated unlicensed features	43% (2)	37% (1)	48% (2)	29% (3)	33%
Did not purchase enough licenses	33% (3)	27%	38% (3)	24%	27%
Purchased/Using Wrong License Types	30%	31% (3)	25%	29% (3)	23%
Vendor applying policies above contractual requirements	28%	23%	30%	32% (2)	47% (1)
Issues with Geographical restrictions	25%	19%	28%	24%	40% (2)

### Figure 8: What was the tone of your software vendor in your most recent audit?

Pushy/hostile 12%



Friendly/professional 88%

**Figure 9: Software Vendor Tone—By Vendor**

## SOFTWARE AUDIT COSTS AND RESOURCES

Companies being audited by Oracle incurred the greatest costs. There are hidden costs as well, even if the vendor does not levy additional charges. Most audit processes required at least three employees, and 40% of companies had their CIOs involved with the process.

For the majority of respondents, 60%, their software audits lasted up to two months. However, a substantial portion, 30%, report audits lasting between three to six months, and 10% even had audits extending more than six months into a year and beyond (See Figure 10). The length of audits, which are likely determined by their scope, run longer at larger companies. While 41% of smaller companies wrap up audits within a month, only 21% of the largest enterprises see this kind of speed—close to half say the process lasts beyond three months (See Figure 11).

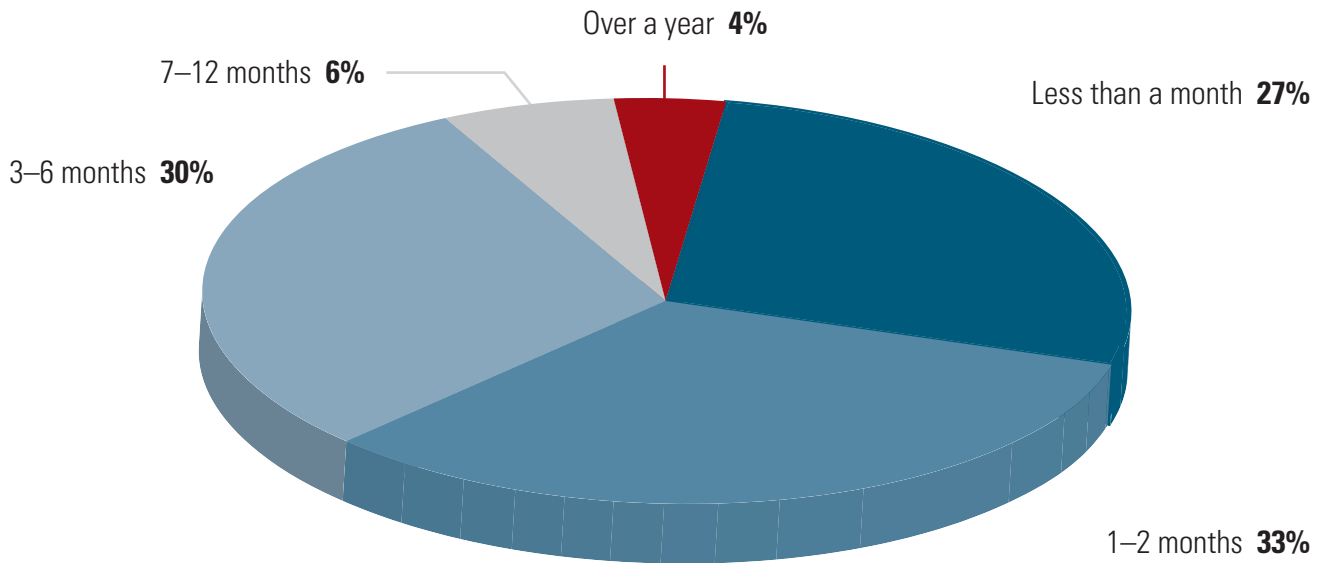
Among companies audited by their software vendors in the past three years, 64% were leveraged additional charges for non-compliance. A substantial portion, 35%, had to pay \$100,000 or more to achieve compliance with the vendor, and 10% were leveraged \$1 million or more in fees (See Figure 12). At the high end, companies being audited by Oracle incurred the highest fees, with 15% required to pay \$1 million or more in non-compliance fees (See Figure 13).

Vendor charges incurred following an audit reflect company size. While more than half of the smallest companies had no charges, only 24% of the largest companies caught such a break. At the same time, while 20% of the largest companies were assessed amounts exceeding \$1 million, these numbers were not seen among their smaller counterparts (See Figure 14).

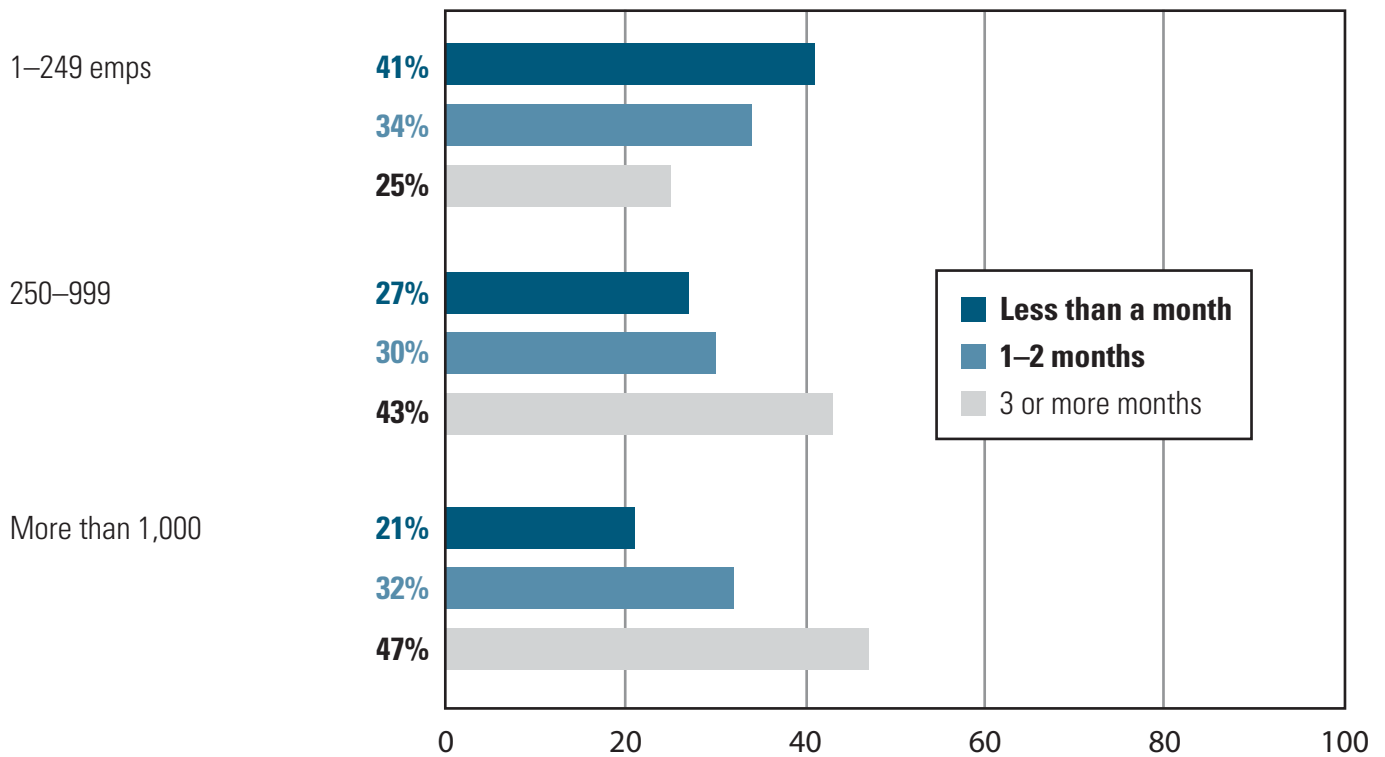
Along with the charges levied by software vendors for non-compliance, an often overlooked aspect of the software audit process is the amount of staff time that needs to be dedicated to the effort. This also incurs cumulative expenses—even if there are no charges levied by the vendor. A majority, 69%, required three or more team members to handle the audits (See Figure 15). The larger the company, the larger the internal team handling the audit. While the majority of smaller companies devoted no more than two staff members to the effort, 48% of the largest companies had six or more employees involved in the process (See Figure 16).

In addition, many members of enterprise getting involved with software audit remediation were high-level, and therefore higher-paid, managers. The time spent by C-level executives or managers, calculated on an hourly basis, can prove expensive to companies. At least 40% of audited companies required the CIO's involvement to help remediate the process (See Figure 17). The longer the audit, of course, the more costly in terms of human capital. As shown above, 40% of software audits extend longer than three months. The salaries related to the portions of managers' or employees' time spent on the audits also need to be factored in as indirect costs. Overall, close to half, 46%, of survey respondents spent more than 10% of their days tending to audits (See Figure 18).

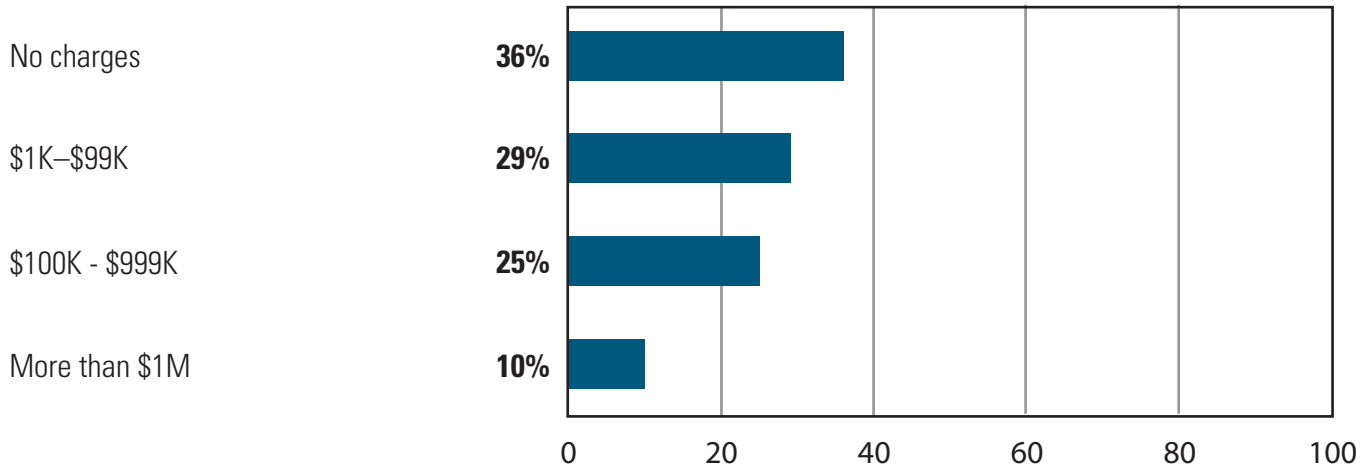
**Figure 10: How long did it take you to resolve your software vendor audit?**



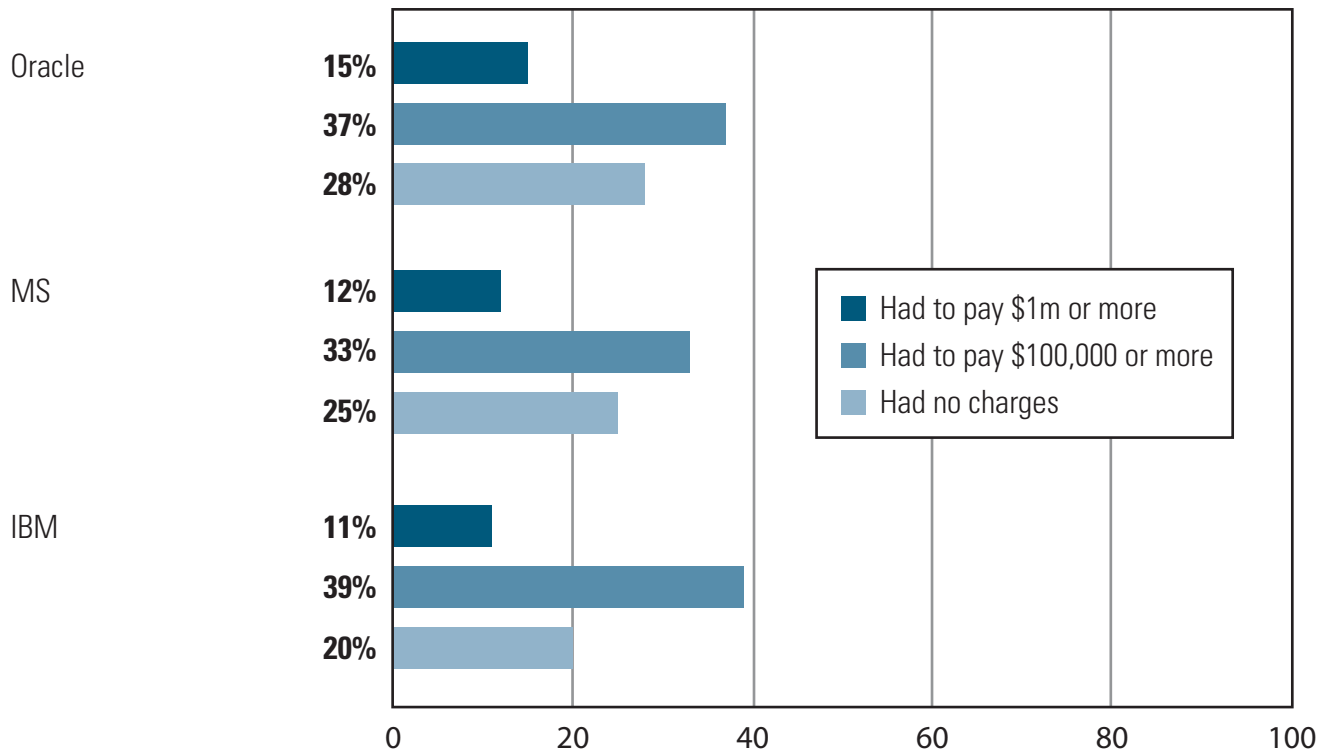
**Figure 11: Length of time to resolve software vendor audit—by company size**



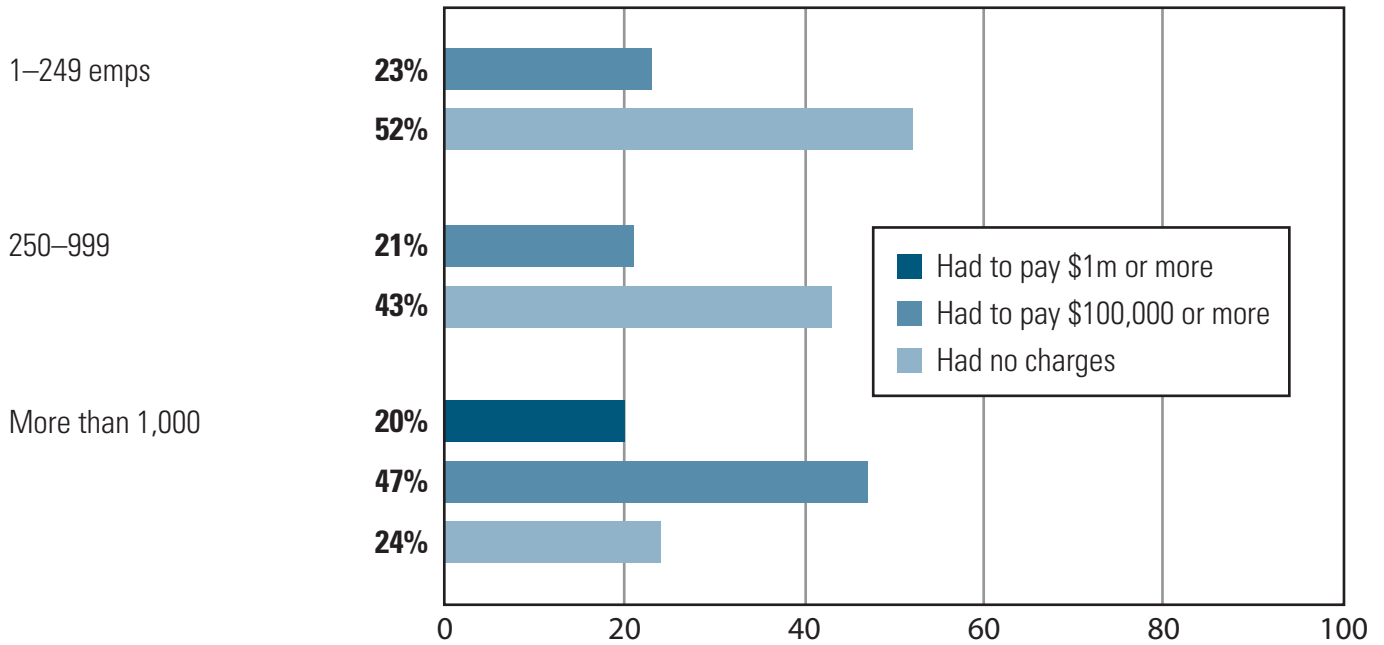
**Figure 12: Please estimate how much additional charges your company has paid as a result of software compliance audits In the last 3 years:**



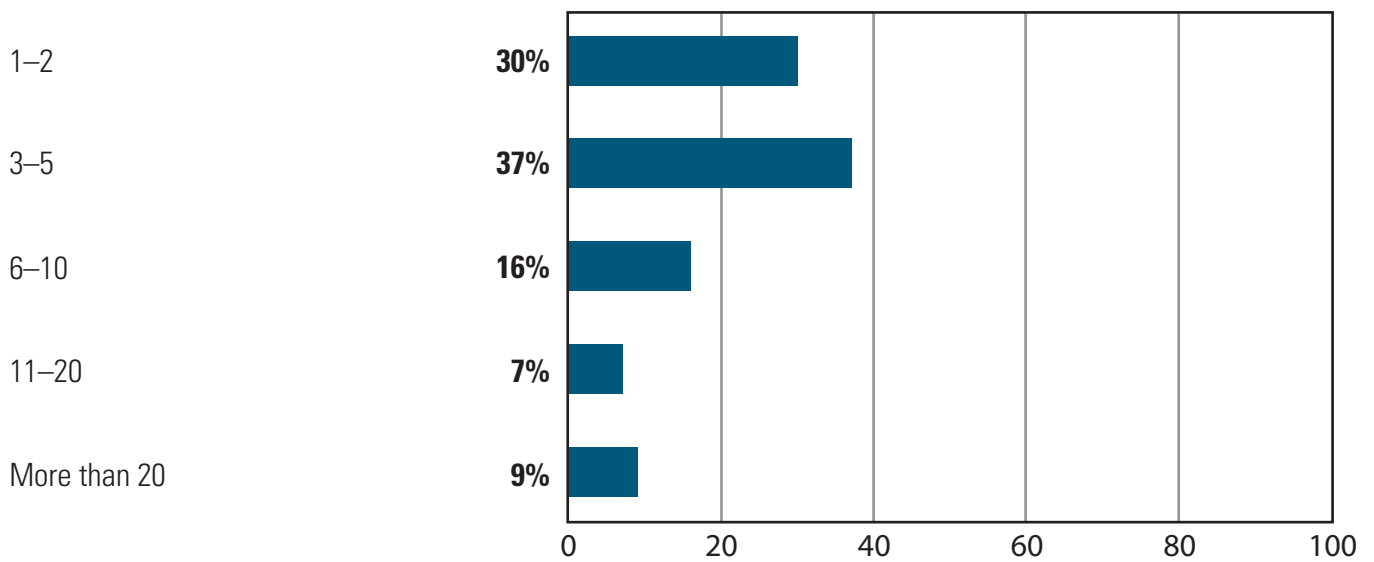
**Figure 13: Additional charges—by vendor conducting audit:**



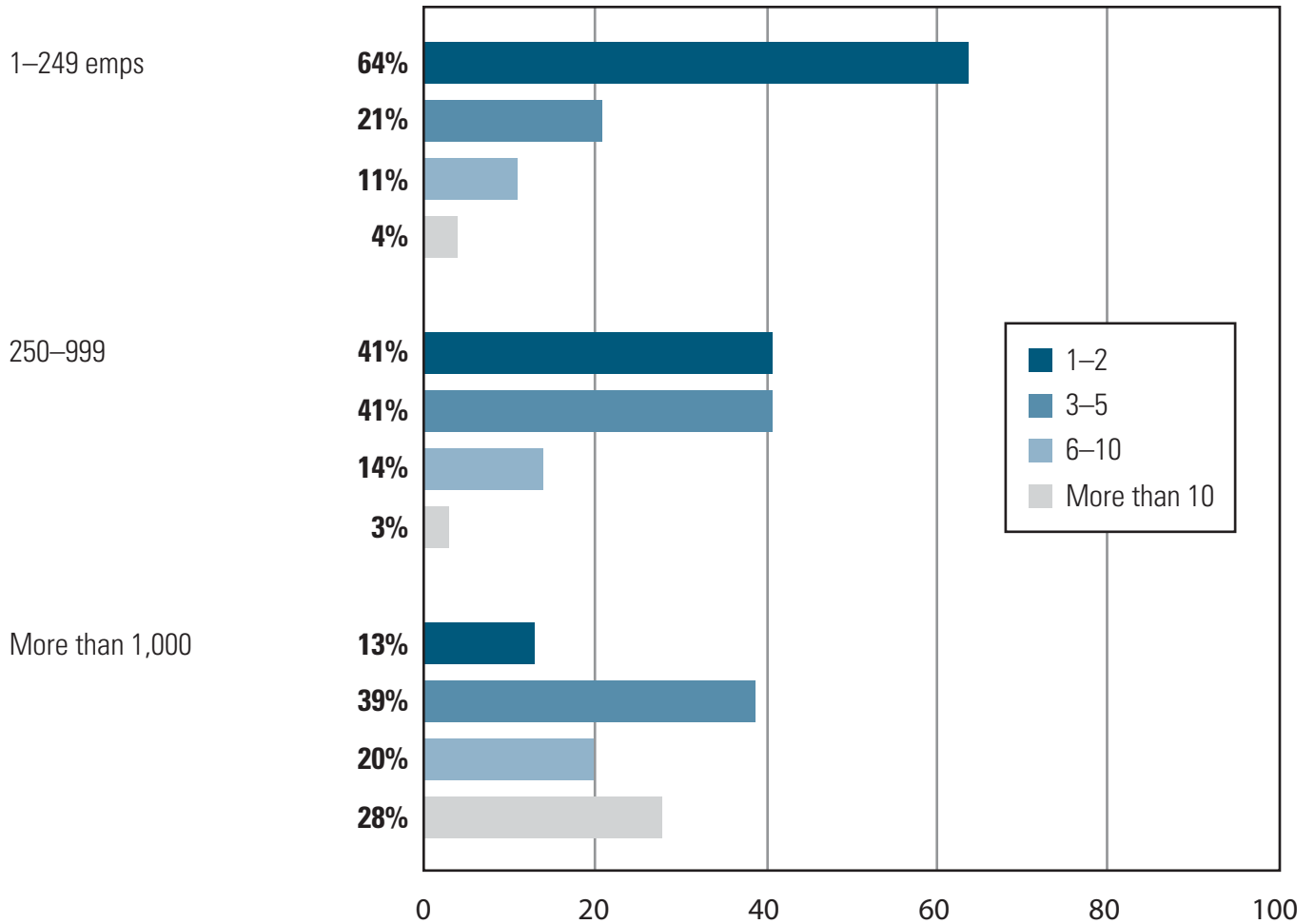
**Figure 14: Additional charges—by company size:**



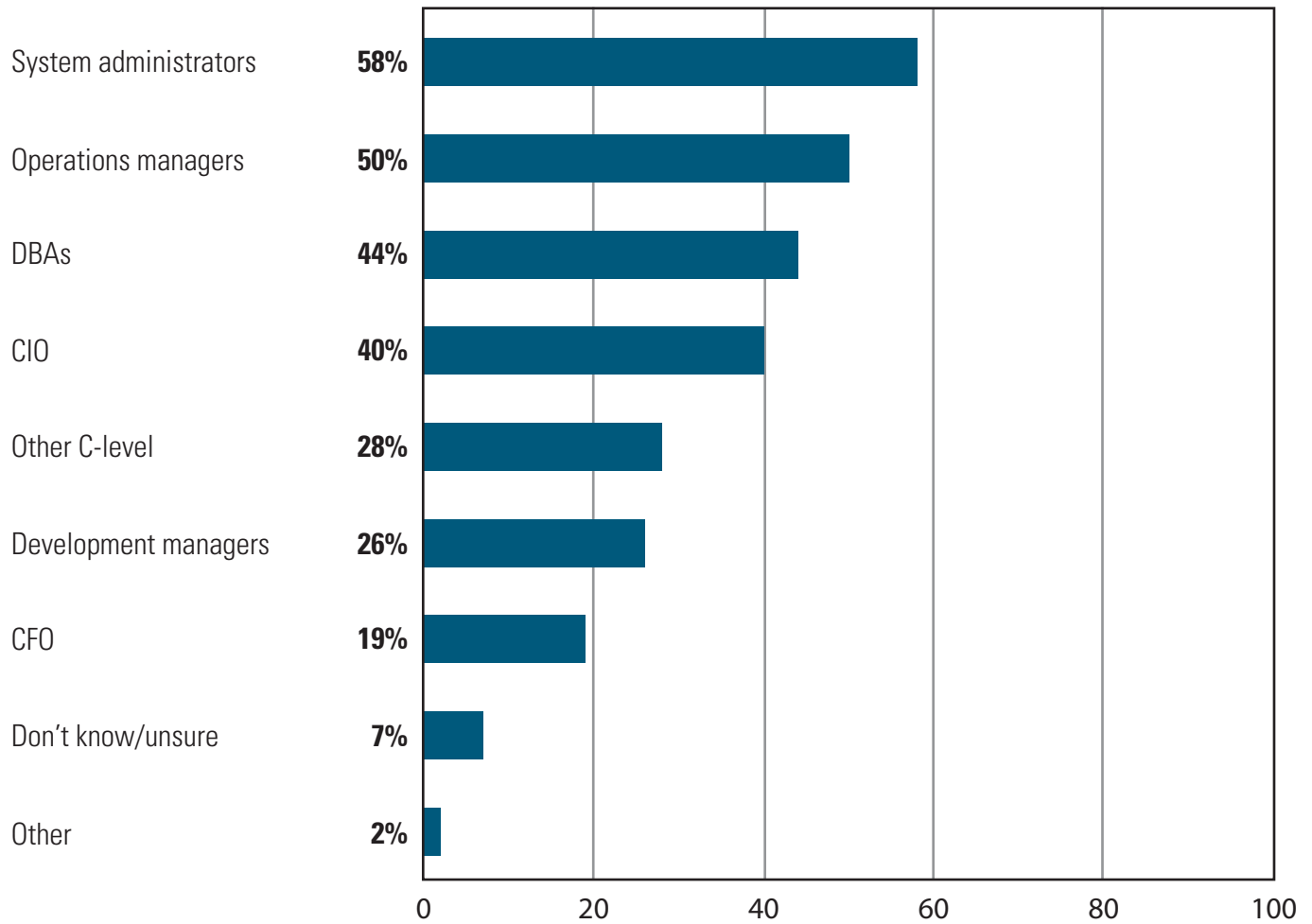
**Figure 15: How many team members were assigned to audit tasks?**



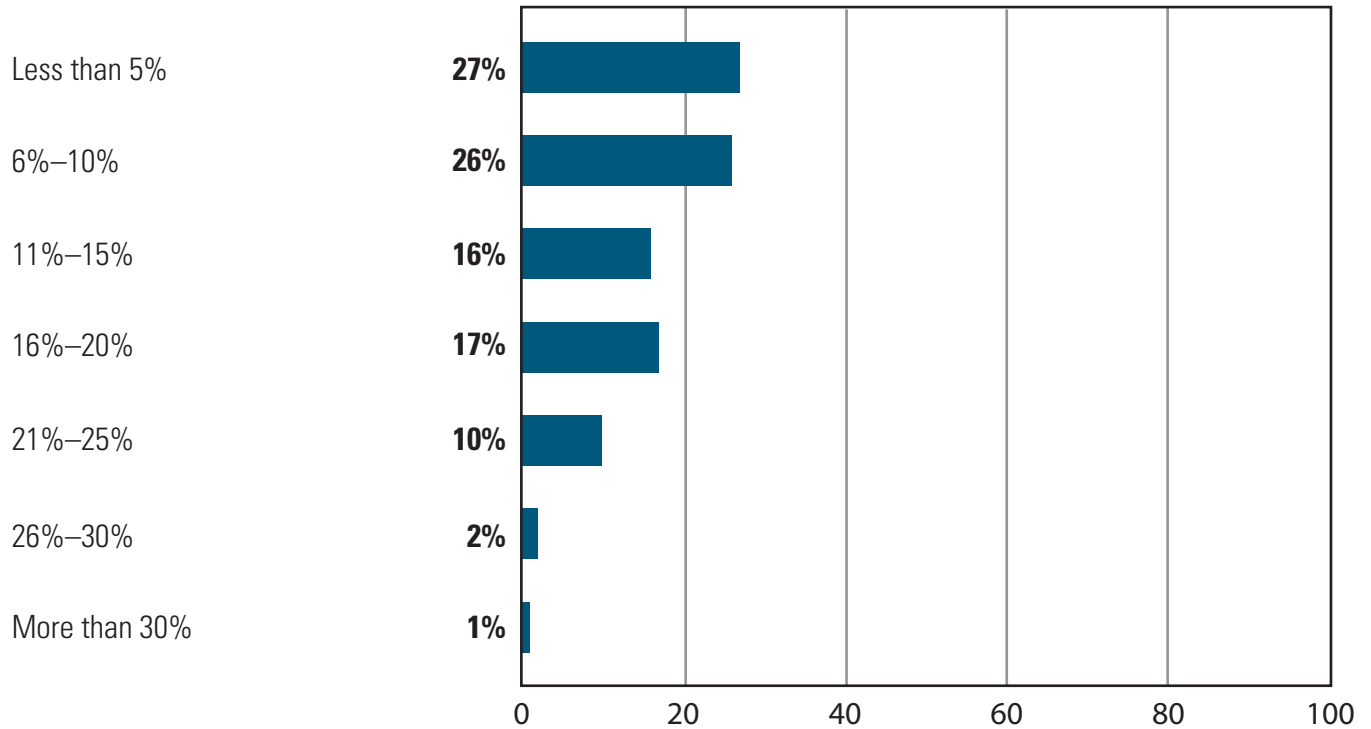
**Figure 16: Team members assigned to audit tasks—by company size**





**Figure 17: What roles within your organization were involved in the audit?**

**Figure 18: What percentage of working hours were dedicated to responding to audit requests?**



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## PREPARING FOR SOFTWARE AUDITS

**A majority of audited companies did not seek outside assistance to guide them through the process. While many depend on tools or software asset management to support their efforts, a majority fail to keep track of software changes on a continuous basis.**

Avoiding software compliance issues also depends on the ability to keep tabs on changes in software configurations or licensing. A majority of all the enterprises in the survey (audited or not audited), 67%, report they do not scan software resources and configurations as part of their software asset management monitoring on a continuous, or at least daily, basis. At best, it is weekly scans, which may miss critical updates or changes to applications and systems. Only 32% scan their systems at least on a daily basis. Sixteen percent report they only scan their software on an annual basis or not at all, meaning they are essentially unaware of the state of their software compliance (see Figure 19).

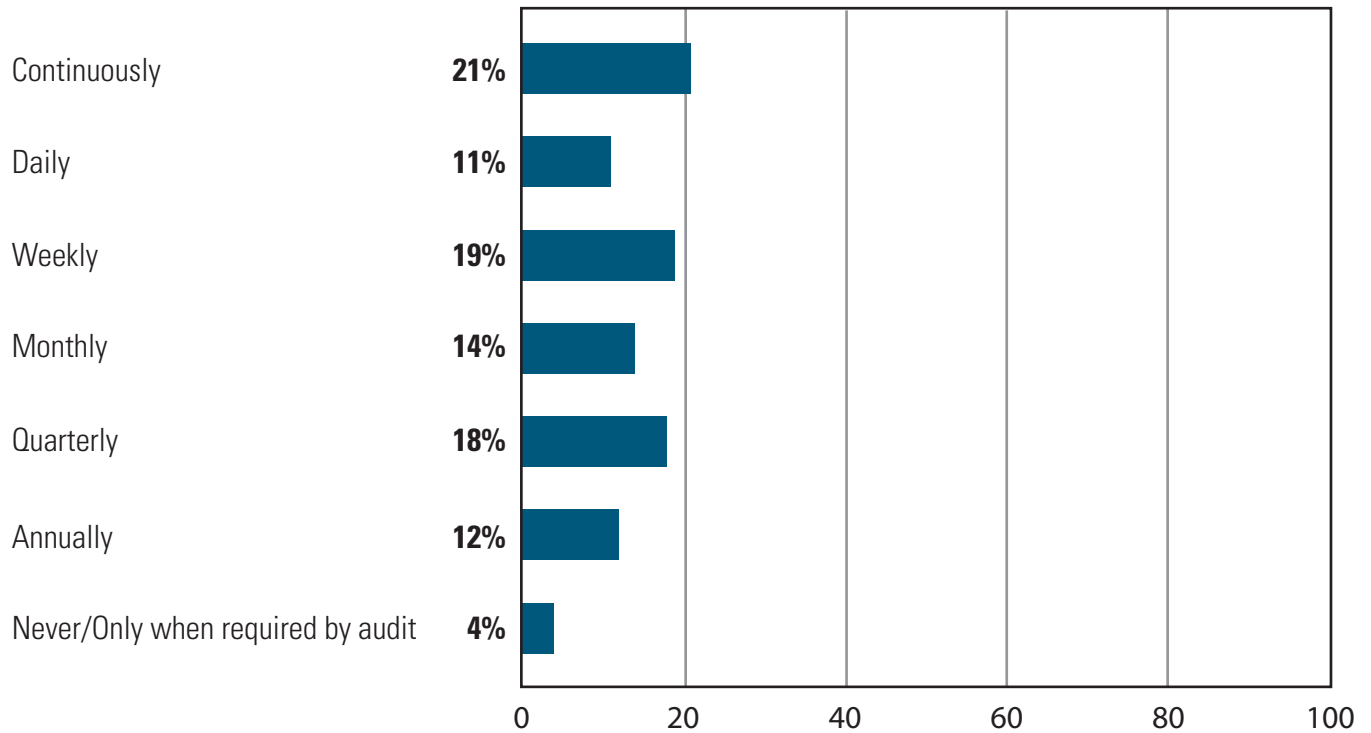
Among those who were audited within the past three years, just over one-third, 34%, engaged a third-party service to assist with negotiating with the vendor (See Figure 20). In just about all cases, the third-party firm was helpful in reducing the liability (See Figure 21).

Among approaches deployed to prevent or manage issues with software compliance, the leading choice is working with

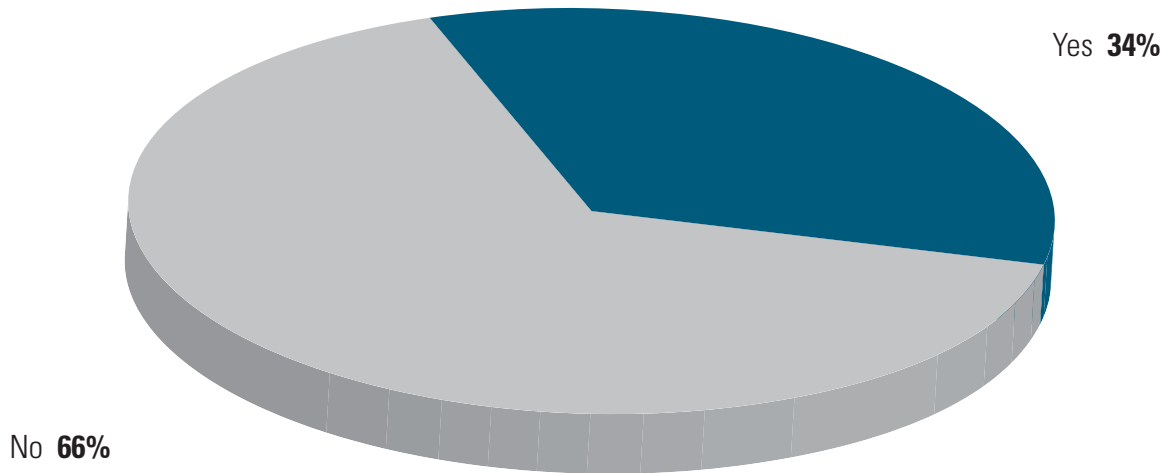
an internal software asset management/IT asset management (SAM/ITAM) team. Respondents were also likely to rely on vendor resources to support their audit (See Figure 22). Software asset management is seen as critical to mitigating the impact of software audits by a significant share of respondents. Close to half, 44%, see SAM as essential to reducing the costs of their software, which is impacted by vendor audits. Another 41% cite the importance of SAM in avoiding compliance issues (See Figure 23).

When it comes to relying on SAM tools and processes to stay ahead of potential compliance audits, the main challenge is optimizing software licenses, cited by close to half, or 46%. Data quality also poses risks to SAM tools and processes, at indicated by 38%. Rounding out the top three challenges with SAM is the continuous introduction of new platforms and environments, such as cloud and Software-as-a-Service, which introduce new layers of complexity (See Figure 24).

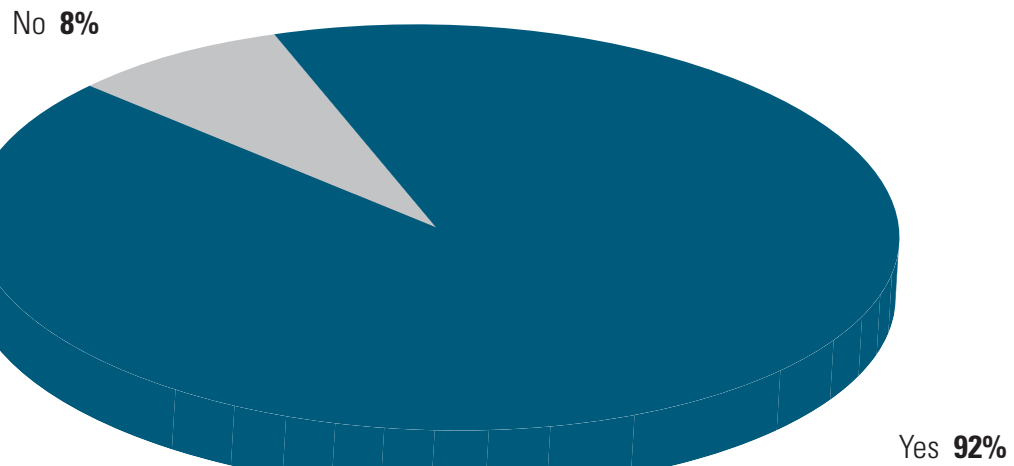
**Figure 19: How frequently do you scan your software resources and configurations as part of your software asset management (SAM) monitoring?**

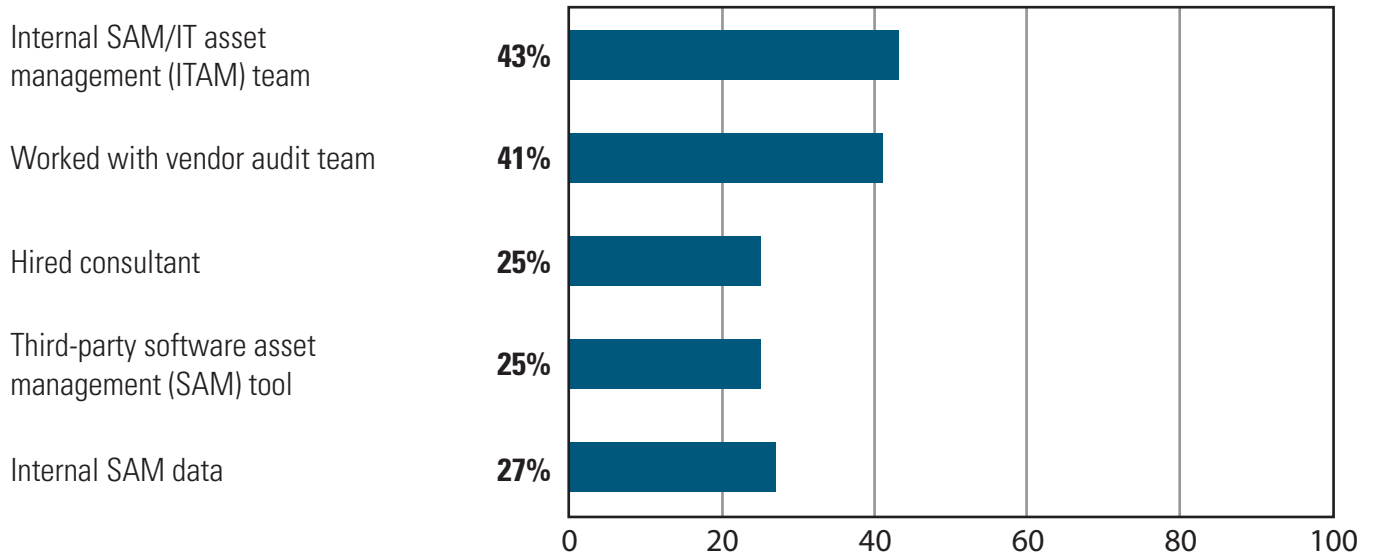


**Figure 20: Did you engage a third-party service to assist with negotiating with the vendor conducting the audit?**

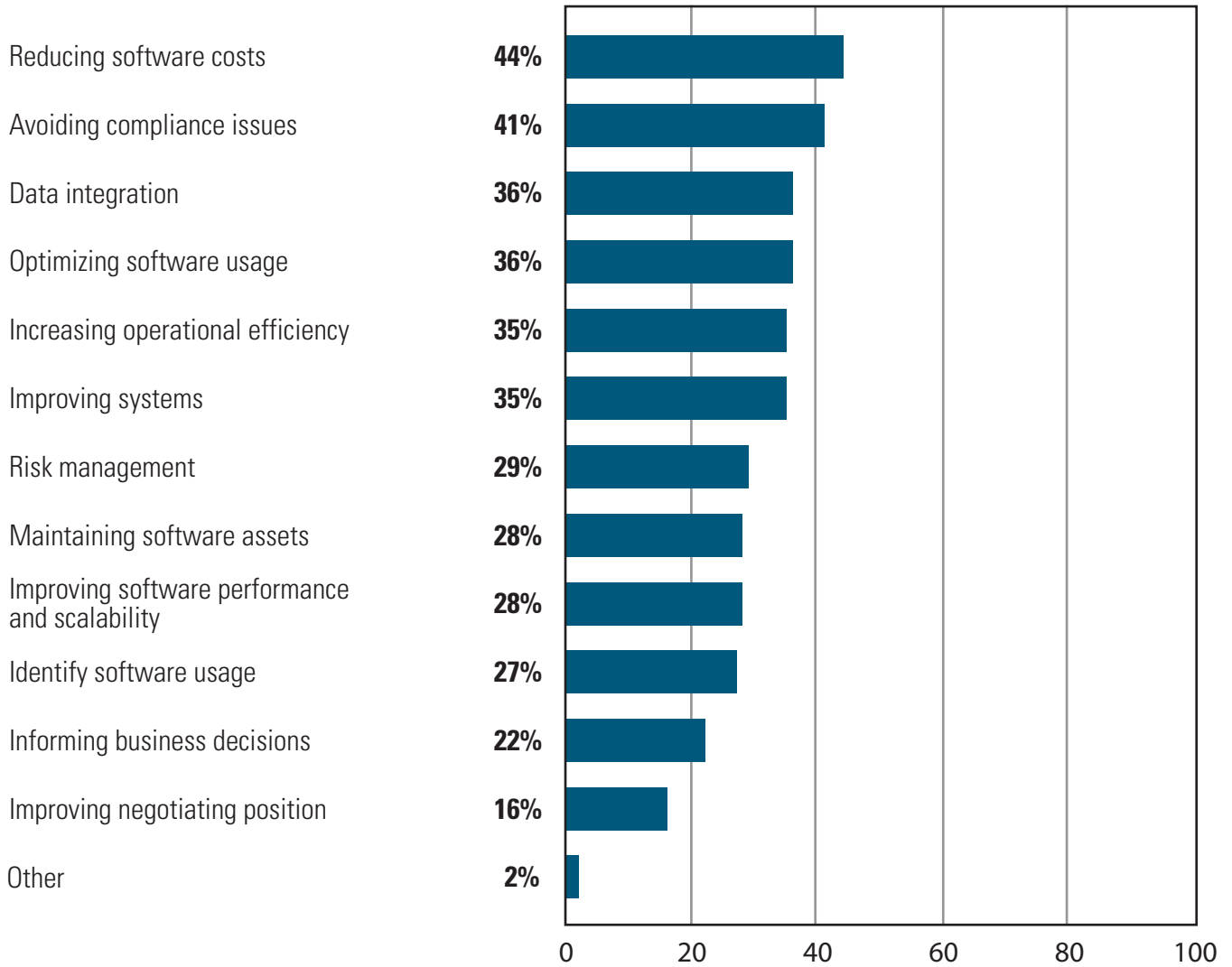


**Figure 21: Was the third-party service firm helpful in reducing your liability?**

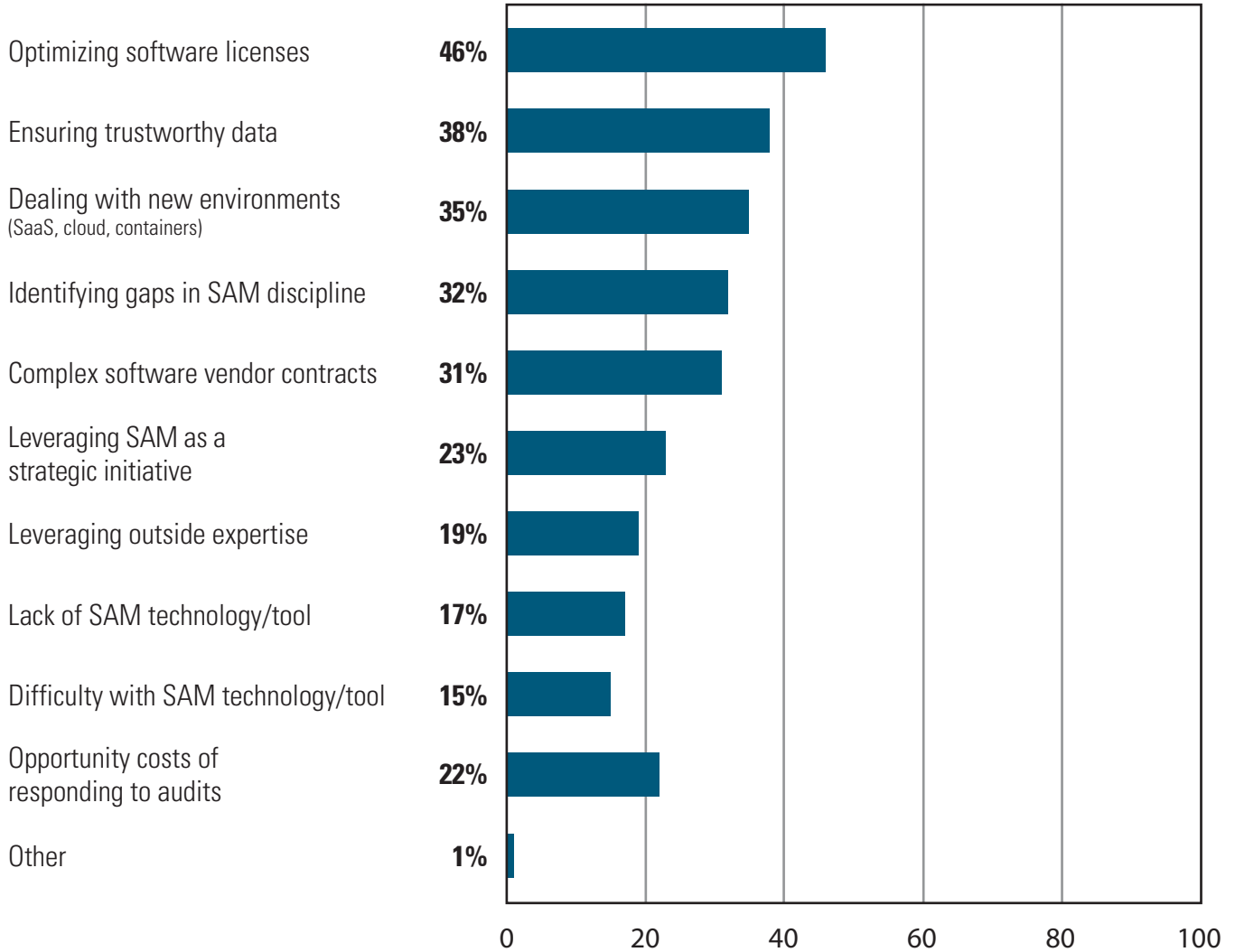


**Figure 22: What resources did you use during your audit?**

**Figure 23: What are your software asset management goals over the coming year?**



**Figure 24: What are your challenges with software asset management?**





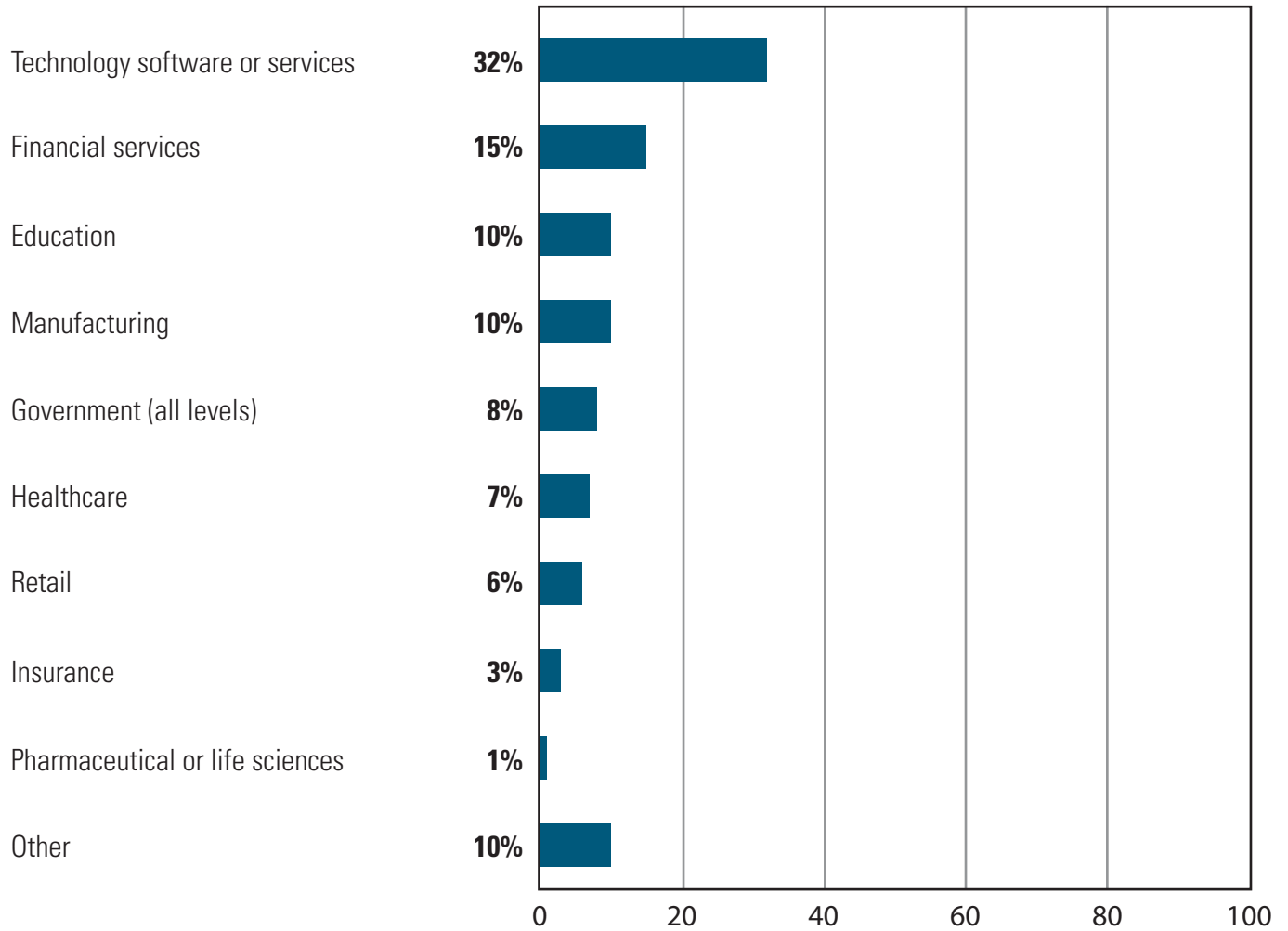
## RECOMMENDATIONS

Companies need to be more prepared for software vendor audits than they are. Few companies have had 100% in-compliance software implementations, and 82% have had additional charges levied by vendors following audits. In addition, the time and stress involved in responding to vendor audits adds up to lost productivity and wages lost to the process. The following are recommendations for organizations to conduct their due diligence before the software vendor comes knocking at their doors. :

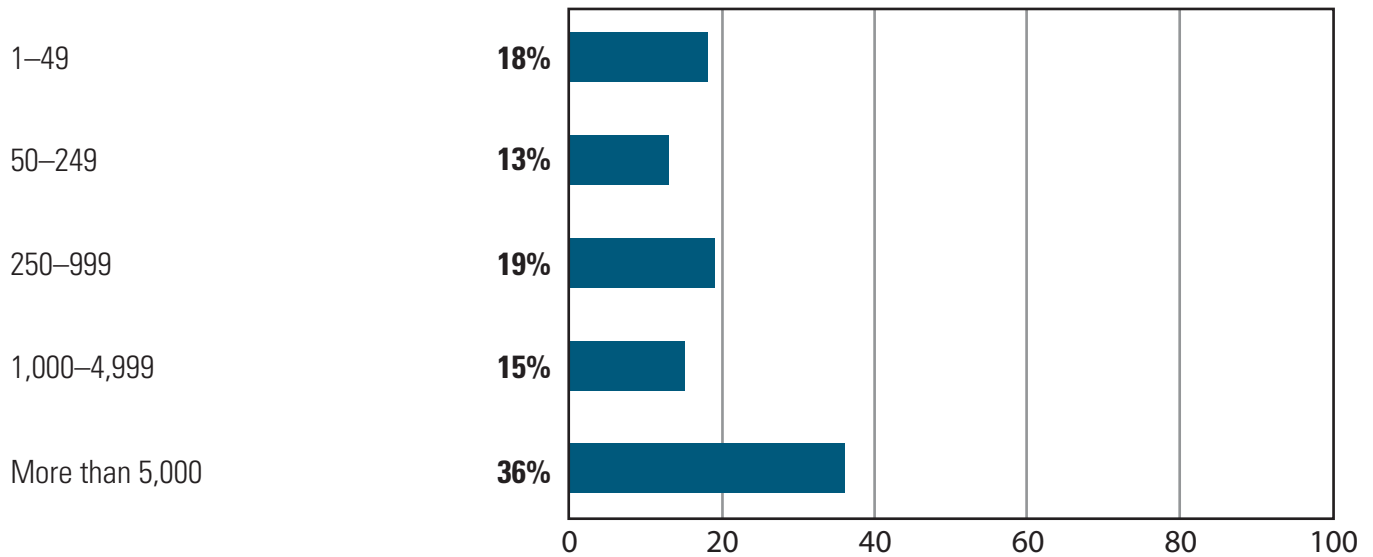
- **Study and understand pending software contracts for changing requirements.** People need to take a step back and think about why they are using certain technologies. When you are doing a licensing optimization exercise, you are remapping your technology against what you are going to need—what’s important to your business requirements—now and in the future.
- **Proactively monitor software usage on a frequent basis.** Many companies encounter difficulties because the way they use software changes—sometimes on a weekly or even daily basis. Historically, licensing consultants have recommended that enterprises conduct annual audits of their own to address inconsistencies or potential violations of software agreements. This no longer works. You need a proactive way to monitor license compliance to identify and correct issues before they become a huge cost liability.
- **Don’t rely exclusively on traditional software asset management tools.** As found in this survey, these tools often fail to keep track of changes on a continual basis. Coverage by software asset management (SAM) tools may be spotty or specific to certain platforms or vendors. Vendors have policies—often complicated and lengthy—that make it hard to keep up with their compliance mandates. The plethora of operating systems, platforms, and configurations makes it difficult to keep tabs on software updates and changes that may run astray of initial vendor agreements. Plus, it’s difficult for overworked IT departments to be able to devote time to SAM.
- **Beware of the hidden costs of audits.** The financial pain of audits may be wider than the compliance fees assessed by the vendor. Even in the case of an audit with no fees assessed, there are a range of hidden costs. The hidden costs of software audits include draining the time of highly paid team members (CIOs, for example) as well as other staff resulting in a loss of productivity and opportunities; you’re not working on driving innovation when you’re busy with an audit. Moreover, most IT departments do not have spare time to begin with—they’re normally busy fighting other fires.
- **Seek professional assistance.** When a vendor audits you, do not assume the goal is license compliance; the goal of the vendor is revenue. Don’t represent yourself. Most respondents did not seek outside assistance, and 30% ended up paying direct fees in the six-figure-or-greater range – not counting the indirect costs mentioned in the previous section of this report. Without professional assistance the close of the audit can open you up for future problems and close out long-term entitlements. Important to understand how to properly close the audit so there are no further repercussions., Get professional help!
- **Don’t look to the cloud to manage software compliance.** For most organizations, the cloud does not alleviate these issues. Nowadays, more and more audits involve complexities inside the contract. Legal expertise is becoming increasingly important during audits.

## DEMOGRAPHICS

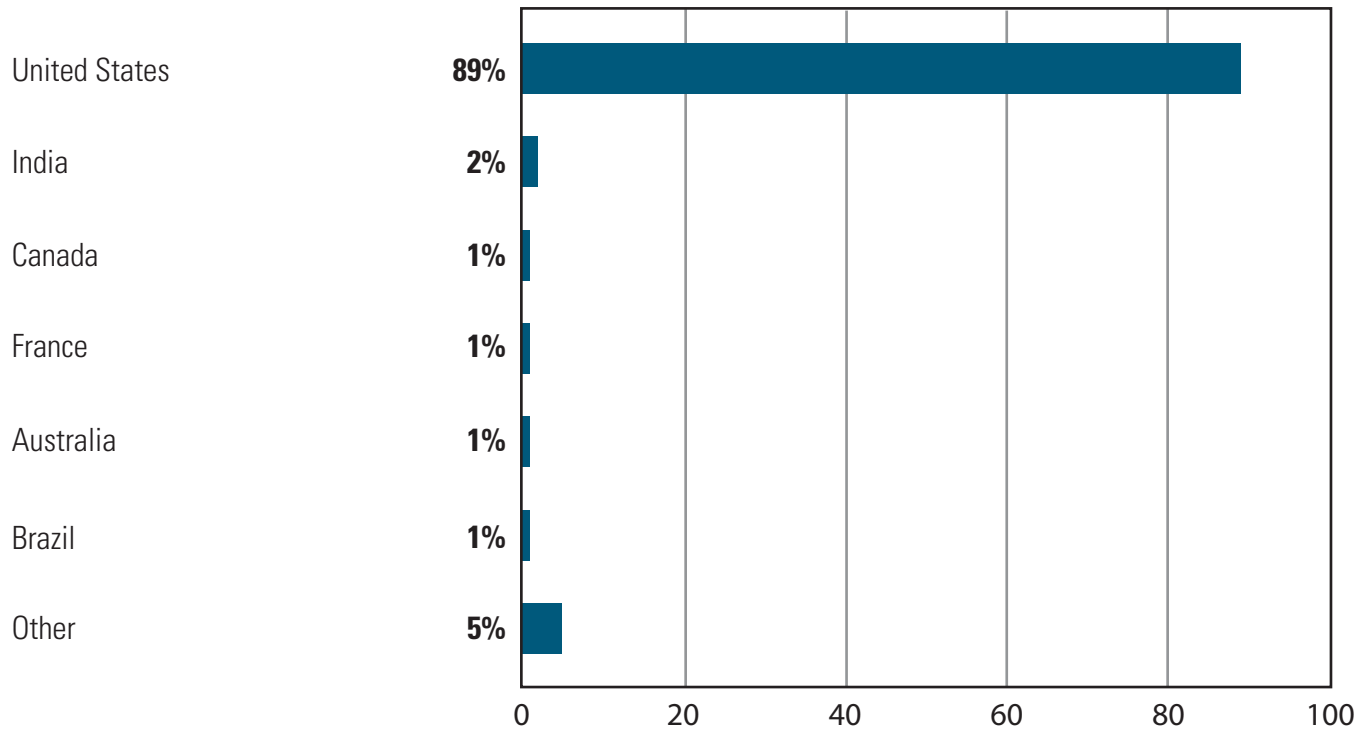
Figure 25: What industry is your company?



**Figure 26: What is the approximate total number of employees at all the locations?**



**Figure 27: What country is your headquarters located in?**



**Figure 28: What is your role?**