

SOX Compliance Amid Rising Costs, Labour Shortages and Other Post-Pandemic Challenges

*Assessing SOX internal costs, hours, controls and other trends in
the results of Protiviti's 2022 Sarbanes-Oxley Compliance Survey*

Table of Contents

02	Executive summary
04	SOX compliance costs – labour and pandemic challenges trigger increases
10	SOX compliance hours continue to rise
13	Opportunities for greater efficiencies in SOX programmes may have a familiar ring to them
15	Benchmarking the SOX control environment
18	SOX technology and automation
23	SOX controls overview
26	Business applications in scope
27	SOC reports
29	Testing information produced by the entity
31	Cybersecurity
32	Perceptions of the SOX compliance process and internal control over financial reporting
35	Methodology and demographics
39	About Protiviti

Executive summary

Two-plus years into contending with a global pandemic, business leaders recognise that Sarbanes-Oxley compliance activities are not immune to a broad range of market disruptions. Inflation, a rising interest rate environment, ongoing supply chain volatility, a bruising talent shortage, and other economic and external factors compromise internal control environments while contributing to rising SOX compliance costs and hours. Internal changes, trends and challenges — including the adoption of flexible work models, recruiting and retention difficulties, digital transformation and innovation, and strategic repositioning in response to external volatility — exert similar pressures on compliance programmes.

Protiviti's annual Sarbanes-Oxley Compliance Survey benchmarks compliance costs, hours, processes and improvements, including how these areas are affected by current business conditions. This year's results show that costs, along with the hours that internal audit teams devote to SOX compliance, continue to increase across most, if not all, company sizes, industries and reporting types. These increases are occurring as external auditors request higher volumes of more detailed SOX-related information from their clients.

Escalating compliance costs, time and efforts have a silver lining: They are driving more investments in automation and technology tools that generate greater efficiencies — and potentially cost savings as well as effectiveness and coverage benefits — into the SOX compliance process. Our data indicates that technology tools currently support an average of one-fourth of SOX compliance work across all companies, and a majority of programmes deploy audit management and/or GRC platforms. These results are promising: Greater use of enabling technologies can, over time, help moderate jumps in internal SOX compliance costs. That said, more progress is needed. Many programmes have yet to begin using an audit management platform while most have yet to leverage more advanced technology tools in their SOX programmes.

There also are opportunities to pursue procedural and structural changes in SOX compliance programmes. Shared services or “centres of excellence” approaches — managed internally or by an external outsourcing partner — offer substantial opportunities for efficiency improvements, especially when it comes to the highly defined and repeatable tasks, such as gathering and organising evidence, and control testing, that dominate SOX compliance efforts. Many of the forces driving internal SOX compliance costs and hours higher are, for the most part, beyond the control of companies. This is not the case with investments in compliance automation and broader technology enablement as well as alternative delivery models that generate greater efficiency over the long term. Internal audit and finance leaders, together with their C-suite colleagues, should avoid delaying their evaluation and pursuit of opportunities in these areas.

Technology tools currently support an average of one-fourth of SOX compliance work across all companies.



Protiviti would like to thank AuditBoard for collaborating on the 2022 Sarbanes-Oxley Compliance Survey questionnaire and report.

AuditBoard is the leading cloud-based platform transforming audit, risk, and security compliance management. More than 30% of the Fortune 500 leverage AuditBoard to move their businesses forward with greater clarity and agility. AuditBoard is top-rated by customers on G2, Capterra, and Gartner Peer Insights, and was recently ranked for the third year in a row as one of the fastest-growing technology companies in North America by Deloitte. To learn more, visit: AuditBoard.com.

Key Findings

Costs continue to climb due to a range of factors: A combination of internal and external factors creating volatility — technology-driven transformation and innovation, talent shortages, strategic pivots and more — is contributing to rising SOX compliance costs. More companies spend \$2 million or more on compliance while fewer spend \$500,000 or less. A surge in the number of smaller companies spending \$2 million or more in SOX compliance costs likely reflects last year's significant increase in initial public offerings (IPOs), driven by special purpose acquisition companies (SPACs).

Hours on the rise as well: A majority of organisations increased the number of hours logged for SOX compliance during their most recent fiscal year. This growth is driven by the same factors contributing to rising compliance costs. SOX compliance teams are also spending more time responding to higher volumes of more detailed information requests from external auditors, whose scrutiny is intensifying in response to actions of and guidance from the Public Company Accounting Oversight Board (PCAOB).

A growing number of companies are deploying automation to support SOX work; more should follow suit: Automation platforms and applications bring greater efficiency to SOX compliance activities. The deployment of process mining, advanced analytics, robotic process automation (RPA) and continuous monitoring, along with other advanced technological tools, can significantly reduce the volume of manual compliance tasks as well as retention risks associated with subjecting internal full-time staff to heavy loads of repetitive, task-driven work.

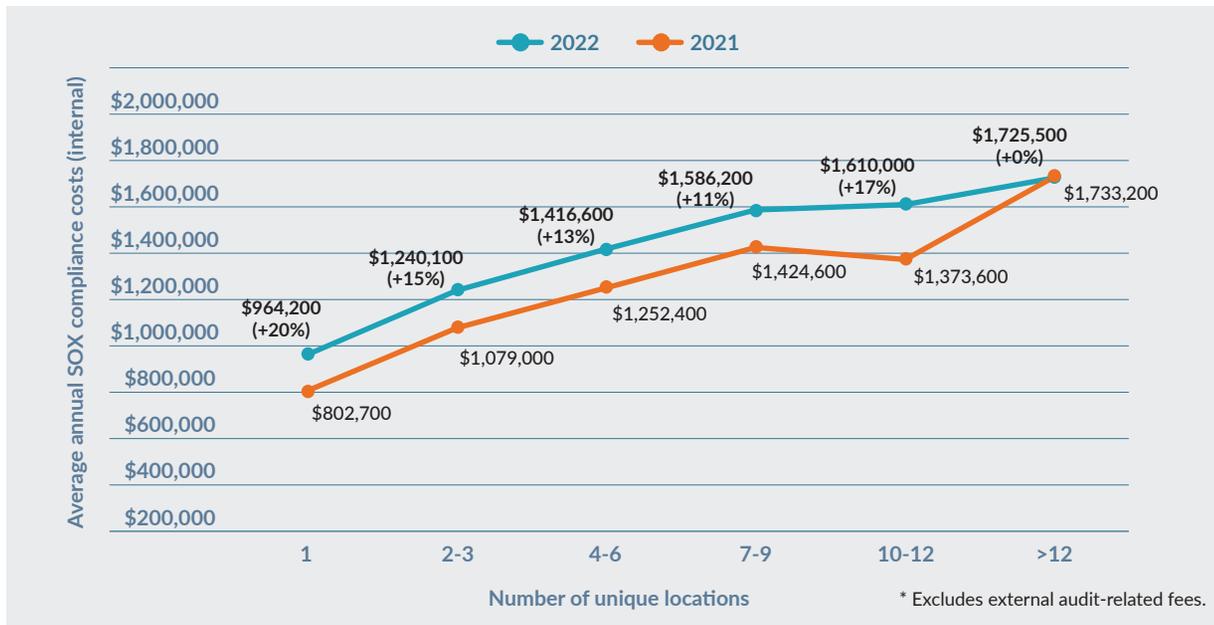
A widespread desire for efficiency is kindling interest in centres of excellence and alternate sourcing strategies: The ongoing goal to moderate SOX compliance cost increases makes alternative delivery models for SOX compliance services more appealing. In addition to investing in supporting automation, efficiency-minded compliance and internal audit leaders are evaluating and adopting internal shared services models as well as partnerships with third parties that operate external centres of excellence for controls testing.

46%

of organisations rely on third-party service providers for SOX testing efforts.

SOX compliance costs – labour and pandemic challenges trigger increases

- • • Average annual SOX compliance costs (internal) by number of unique locations*
Percentages in parentheses indicate year-over-year changes



Sample size: n=536 respondents

What you need to know

- A number of factors are driving increased internal costs for SOX compliance: inflation, low unemployment levels and resulting labour shortages, ongoing hybrid and remote working models, additional effort based on greater precision required in different SOX compliance activities, and more.
- External auditors continue to request a wider range of information and on a more detailed level – increased requests for substantiation require more time (see section on SOX compliance hours) and result in higher costs.
- Interestingly, within a number of groups (e.g., smaller reporting and emerging growth companies), the percentage of those spending \$2 million or more on SOX compliance dropped compared with our prior year data for fiscal year 2020. This difference could be a result of the large number of IPOs driven by SPACs during that period, which likely increased SOX costs for those organisations going through their first year of compliance.

• • • Average annual SOX compliance costs (internal)*

	2022	2021	Year-over-year trend	Percent change
SOX filer status				
Large accelerated filer	\$1,450,800	\$1,328,300	⬆️	9%
Accelerated filer**	\$1,232,400	\$1,221,900	⬆️	1%
Smaller reporting company	\$1,433,600	\$1,126,000	⬆️	27%
Emerging growth company	\$1,370,200	\$1,408,300	⬇️	-3%
Size of organisation				
\$10 billion or greater	\$1,929,700	\$2,014,100	⬇️	-4%
\$5 billion to \$9.99 billion	\$1,447,400	\$1,414,000	⬆️	2%
\$1 billion to \$4.99 billion	\$1,400,700	\$1,145,900	⬆️	22%
\$500 million to \$999.99 million	\$1,208,200	\$1,061,500	⬆️	14%
Less than \$500 million	\$981,100	\$449,100	⬆️	118%
SOX compliance year				
Beyond 2nd year of SOX compliance 404(a) and 404(b)	\$1,468,300	\$1,248,900	⬆️	18%
2nd year of SOX compliance 404(a) and 404(b)	\$1,162,900	\$1,385,800	⬇️	-16%
1st year of SOX compliance 404(a) and 404(b)	\$1,477,500	\$1,528,300	⬇️	-3%
Ongoing 404(a) SOX compliance	\$1,333,600	N/A	N/A	N/A
1st year of SOX compliance or ongoing 404(a)	\$1,423,900	\$1,286,400	⬆️	11%
Pre-1st year of SOX compliance***	\$1,368,500	\$767,700	⬆️	78%

Sample size: n=536 respondents

* Excludes external audit-related fees.

** Does not include smaller reporting companies.

*** Indicates small sample size in this year's study.

What you need to know

- Across the board, the number of organisations able to spend \$500,000 or less on SOX compliance dropped. The price of entry to become a public company continues to go up. Given the aforementioned factors driving up SOX costs – inflation, labour challenges, etc. – it is understandable to see few organisations falling below this figure.
- More organisations are investing in offshore and outsourced resources to assist with SOX compliance – for example, organisations are investing an average of 34% of their SOX internal costs for offshored resources, compared with 26% last year. This can be advantageous in creating greater efficiencies, capitalising on advanced technologies, and enabling full-time staff to move away from defined and repeatable work for areas such as controls testing and focus more on higher-value responsibilities (see sidebar, “Opportunities for greater efficiencies in SOX programmes may have a familiar ring to them”).

- • • Who spent \$2 million or more (internal)*

	2022	2021	Year-over-year trend
SOX filer status			
Large accelerated filer	26%	24%	↑
Accelerated filer**	15%	15%	↔
Smaller reporting company	10%	20%	↓
Emerging growth company	17%	23%	↓
Size of organisation			
\$10 billion or greater	52%	47%	↑
\$5 billion to \$9.99 billion	23%	25%	↓
\$1 billion to \$4.99 billion	16%	15%	↑
\$500 million to \$999.99 million	7%	10%	↓
Less than \$500 million	6%	4%	↑
SOX compliance year			
Beyond 2nd year of SOX compliance 404(a) and 404(b)	30%	24%	↑
2nd year of SOX compliance 404(a) and 404(b)	11%	13%	↓
1st year of SOX compliance 404(a) and 404(b)	21%	19%	↑
Ongoing 404(a) SOX compliance	14%	N/A	N/A
1st year of SOX compliance or ongoing 404(a)	15%	18%	↓
Pre-1st year of SOX compliance	15%	10%	↑
Number of unique locations			
More than 12	38%	41%	↓
10-12	30%	17%	↑
7-9	22%	24%	↓
4-6	18%	15%	↑
2-3	13%	15%	↓
1	9%	11%	↓

Sample size: n=536 respondents

* Excludes external audit-related fees.

** Does not include smaller reporting companies.

How does your organisation compare?

- • • Who spent \$500,000 or less (internal)*

	2022	2021	Year-over-year trend
SOX filer status			
Large accelerated filer	16%	24%	↓
Accelerated filer**	14%	19%	↓
Smaller reporting company	11%	40%	↓
Emerging growth company	9%	15%	↓
Size of organisation			
\$10 billion or greater	8%	8%	↔
\$5 billion to \$9.99 billion	9%	17%	↓
\$1 billion to \$4.99 billion	10%	24%	↓
\$500 million to \$999.99 million	12%	23%	↓
Less than \$500 million	27%	80%	↓
SOX compliance year			
Beyond 2nd year of SOX compliance 404(a) and 404(b)	20%	30%	↓
2nd year of SOX compliance 404(a) and 404(b)	14%	13%	↑
1st year of SOX compliance 404(a) and 404(b)	3%	3%	↔
Ongoing 404(a) SOX compliance	12%	N/A	N/A
1st year of SOX compliance or ongoing 404(a)	6%	13%	↓
Pre-1st year of SOX compliance	15%	56%	↓
Number of unique locations			
More than 12	19%	20%	↓
10-12	15%	17%	↓
7-9	3%	10%	↓
4-6	6%	20%	↓
2-3	15%	31%	↓
1	33%	52%	↓

Sample size: n=536 respondents

* Excludes external audit-related fees.

** Does not include smaller reporting companies.

How does your organisation compare?

- • • *What portion of SOX internal costs is for outsourced resources (both onshore and offshore)?*

	2022	2021
0-10%	14%	23%
11-20%	7%	8%
21-30%	9%	12%
31-40%	13%	10%
41-50%	19%	13%
51-60%	19%	13%
61-70%	11%	8%
71-80%	5%	6%
81-90%	2%	3%
91-100%	1%	4%
Average percentage	41%	37%

Sample size: n=536 respondents

- • • *What portion of SOX internal costs is offshored for internal resources?*

	2022	2021
0-10%	26%	47%
11-20%	6%	6%
21-30%	7%	8%
31-40%	13%	9%
41-50%	18%	9%
51-60%	18%	10%
61-70%	8%	5%
71-80%	4%	3%
81-90%	0%	2%
91-100%	0%	1%
Average percentage	35%	26%

Sample size: n=536 respondents

How does your organisation compare?

SOX compliance hours continue to rise

- • • For fiscal year 2021, how did the total amount of hours your organisation devoted to Sarbanes-Oxley compliance change?

	2022	2021
SOX compliance hours increased	53%	53%
SOX compliance hours decreased	21%	18%
SOX compliance hours stayed the same	26%	29%

Sample size: n=536 respondents

	SOX compliance hours increased		SOX compliance hours decreased	
	2022	2021	2022	2021
SOX filer status				
Large accelerated filer	45%	48%	17%	16%
Accelerated filer*	52%	50%	27%	31%
Smaller reporting company	51%	56%	26%	12%
Emerging growth company	62%	71%	22%	13%
Size of organisation				
\$10 billion or greater	47%	45%	13%	19%
\$5 billion to \$9.99 billion	50%	59%	31%	18%
\$1 billion to \$4.99 billion	53%	56%	23%	21%
\$500 million to \$999.99 million	64%	53%	22%	16%
Less than \$500 million	48%	50%	15%	13%

Sample size: n=536 respondents

Continued...

* Does not include smaller reporting companies.

What you need to know

- A key contributing factor to ongoing increases in SOX compliance hours includes the growing number of requests from external auditors for more detailed information from management teams to substantiate their audit conclusions.
- Of note, for numerous SOX activities, the average number of hours spent on each key control fell slightly compared with our prior year results. This is a positive development and could be an effect of the greater use of technology and automation (see section, “SOX technology and automation”). Consider that for an organisation with 200 controls, a reduction of one hour in, for example, testing for operating control effectiveness can result in 200 saved hours. That said, given that overall SOX compliance hours rose for a majority of organisations, it is clear that hours in areas other than testing are increasing and/or overall scope is increasing or changing such that additional hours are required.

- • • For fiscal year 2021, how did the total amount of hours your organisation devoted to Sarbanes-Oxley compliance change?

	SOX compliance hours increased		SOX compliance hours decreased	
	2022	2021	2022	2021
SOX compliance year				
Beyond 2nd year of SOX compliance 404(a) and 404(b)	43%	52%	13%	13%
2nd year of SOX compliance 404(a) and 404(b)	51%	45%	26%	22%
1st year of SOX compliance 404(a) and 404(b)	52%	58%	29%	32%
Ongoing 404(a) SOX compliance	56%	N/A	22%	N/A
1st year of SOX compliance or ongoing 404(a)	61%	56%	25%	25%
Pre-1st year of SOX compliance	63%	65%	15%	15%
Number of unique locations				
More than 12	49%	56%	13%	9%
10-12	50%	40%	20%	26%
7-9	54%	55%	24%	27%
4-6	52%	56%	22%	19%
2-3	54%	58%	25%	17%
1	57%	43%	13%	18%

Sample size: n=536 respondents

How does your organisation compare?

- • • During fiscal year 2021, how many hours, on average, would you estimate your organisation spent on each key control as it relates to the following activities?

	2022 avg. no. of hours	2021 avg. no. of hours	Less than 1 hour	1-2 hours	3-4 hours	5-6 hours	7-8 hours	9-10 hours	Over 10 hours
Testing for control operating effectiveness	5.3	6.2	3%	18%	22%	28%	15%	5%	9%
Testing management review controls	5.1	5.6	5%	17%	27%	23%	13%	7%	8%
Time to analyse a SOC report	4.8	5.1	7%	19%	26%	25%	13%	4%	6%
Evaluating control design	4.7	4.8	5%	23%	27%	20%	12%	7%	6%
Testing information produced by entity (IPE) for data used to execute key controls	4.6	4.9	6%	23%	26%	21%	12%	5%	7%
Creating or updating control documentation	4.6	4.8	7%	22%	26%	20%	14%	5%	6%

Sample size: n=536 respondents

How does your organisation compare?

Opportunities for greater efficiencies in SOX programmes may have a familiar ring to them

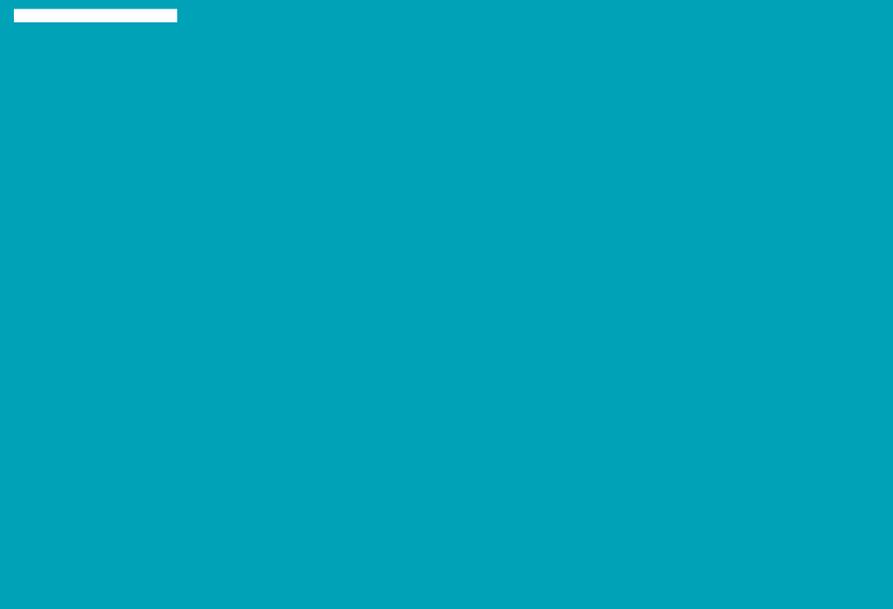
A number of results in this year's survey showcase the commitment of internal audit and SOX teams to improve the efficacy and efficiency of SOX compliance efforts in the face of cost pressures, intensifying scrutiny from external auditors, labour shortages, remote and hybrid working models, broad and accelerated enterprise projects (e.g., system implementations) that result in changes/increases in scope, and other challenges. Many of these opportunities involve increased use of automation, as they absolutely should. Yet many internal audit teams have yet to explore another valuable opportunity to notch major improvements via a familiar but overlooked mechanism: centres of excellence and related service-delivery models.

Just over half of organisations are leveraging audit management and/or GRC platforms to help perform SOX compliance work more effectively and efficiently. While far fewer organisations have yet to deploy process mining, continuous monitoring and other forms of advanced automation, those tools are attracting more interest. This is good news, and it should motivate organisations that have yet to deploy advanced compliance tools and technologies to reconsider. Additionally, internal audit and SOX compliance leaders should consider how external compliance centres of excellence

can generate efficiency gains, provide access to leading-edge technology, potentially reduce annual SOX compliance cost increases, and deliver talent management benefits, among other advantages.

SOX controls testing ranks among the most defined and repeatable type of work that internal audit groups perform. As such, this work is well-suited to be conducted in a centralised and/or outsourced centre of excellence model. These are the same approaches organisations have deployed to manage numerous finance, accounting, tax and other back-office processes.

Organisations are investing an average of 41% of their SOX internal costs for outsourced resources, compared with 37% last year.



From a SOX compliance improvement perspective, an alternative service delivery approach yields the following benefits:



Efficiency improvements

External delivery centres are designed, staffed and managed for the sole purpose of performing SOX compliance work as effectively and efficiently as possible. Leaders of these operations continually invest in the talent, training, technology, automation and process improvements required to fulfil their mandate.



Access to advanced automation and tools

For the majority of organisations that have yet to invest in advanced automation for their SOX compliance programmes, the use of external compliance delivery centres offers immediate access to leading-edge workflow automation solutions, intelligent audit platforms and other advanced tools that help streamline controls testing and other compliance processes.



Opportunity to reduce compliance cost increases

The labour arbitrage associated with offshore delivery centres offers opportunities for cost savings. Domestic delivery centres also offer services at prices that tend to be lower than the cost of completing the same work via internal full-time employees.



Staffing and retention advantages

Using an external service delivery model allows internal audit leaders to replace the routine controls testing work their teams previously performed with higher-value responsibilities. That swap helps the internal audit team expand its strategic contributions while reducing the risk of losing internal auditors (to other areas of the organisation or to other companies) who may have grown weary of conducting highly repetitive controls testing work.

Organisations typically evaluate the use of an alternative delivery model for compliance services in response to one or more triggering events. A surge in annual SOX compliance costs and/or hours may prompt consideration of alternatives. In other cases, internal audit leaders will consider the use of an external SOX compliance services partner to free up internal resources to better respond to more, and more detailed, SOX compliance matters raised by external auditors. Transactional and other activity that results in significant changes in scope also may stimulate interest.

In addition, leadership turnover may stimulate new thinking about how SOX compliance can be improved. New internal audit leaders often scrutinise every aspect of their function's work, including compliance costs and efficiency. Given that the factors driving compliance costs higher show no signs of abating, internal audit leaders who have not yet scrutinised the benefits of alternative delivery models will want to reconsider.

Benchmarking the SOX control environment

- • • What percentage of your controls testing do the external auditors rely upon?

	2022	2021
0%	5%	6%
1%-10%	7%	9%
11%-20%	22%	19%
21%-30%	35%	25%
31%-40%	15%	16%
41%-50%	6%	11%
More than 50%	10%	14%
Average percentage	26%	29%

Sample size: n=562 respondents

	SOX filer status			
	Large accelerated filer	Accelerated filer*	Smaller reporting company	Emerging growth company
0%	5%	3%	0%	0%
1%-10%	7%	12%	8%	4%
11%-20%	15%	24%	33%	25%
21%-30%	26%	30%	39%	46%
31%-40%	13%	23%	14%	15%
41%-50%	12%	2%	3%	4%
More than 50%	22%	6%	3%	6%
2022 average percentage	32%	24%	23%	26%
2021 average percentage	32%	27%	27%	25%

Sample size: n=562 respondents

* Does not include smaller reporting companies.

What you need to know

- In assessing year-over-year trends in external auditor reliance on management controls testing, percentages show a year-over-year decline – i.e., external auditors appear to be relying less on this testing. This likely is a further indicator of external auditors seeking to independently substantiate their findings on a more frequent basis, per guidance from the PCAOB.
- Related to these findings, for processes that are outsourced, a majority of organisations are auditing suppliers directly to gain sufficient comfort around the control environment. This represents a significant jump from the prior year results. Among other factors, external auditor requests for deeper and more detailed information to substantiate audit findings may be driving this trend. This increase also may be a factor in the greater portion of SOC reports that have exceptions or qualified opinions (see page 27).

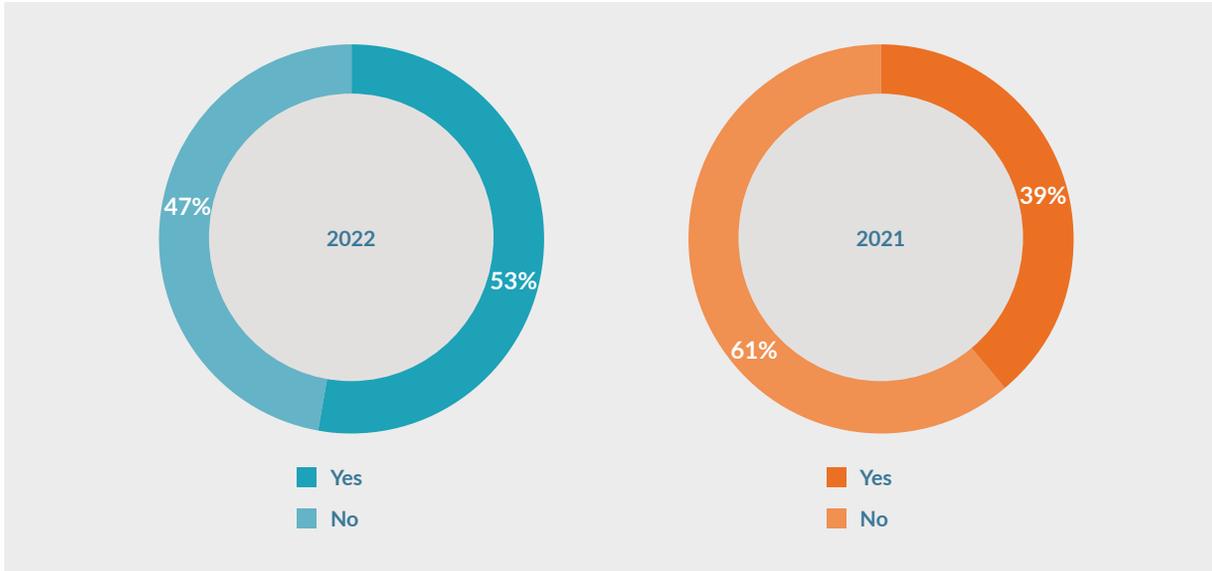
- • • What percentage of your controls testing do the external auditors rely upon?

	Size of organisation				
	\$10 billion or greater	\$5 billion to \$9.99 billion	\$1 billion to \$4.99 billion	\$500 million to \$999.99 million	Less than \$500 million
0%	5%	0%	3%	4%	13%
1%-10%	9%	6%	7%	4%	12%
11%-20%	6%	22%	23%	28%	26%
21%-30%	22%	38%	40%	39%	25%
31%-40%	9%	23%	15%	17%	10%
41%-50%	16%	6%	4%	3%	5%
More than 50%	33%	5%	8%	5%	9%
2022 average percentage	37%	27%	26%	25%	22%
2021 average percentage	32%	28%	29%	28%	23%

Sample size: n=562 respondents

How does your organisation compare?

- • • For processes that your company outsources, have you had to audit the supplier directly to gain sufficient comfort around the control environment?



Sample size: n=562 respondents

- • • For processes that your company outsources, how often are they able to rely solely on internal management review controls for testing outsourced provider controls?

	2022	2021
0%	10%	16%
1%-10%	6%	8%
11%-20%	2%	6%
21%-30%	2%	9%
31%-40%	7%	5%
41%-50%	12%	11%
51%-60%	15%	8%
61%-70%	21%	6%
71%-80%	15%	10%
81%-90%	4%	6%
91%-100%	6%	15%
Average percentage	52%	49%

Sample size: n=562 respondents

How does your organisation compare?

SOX technology and automation

- • • *Which of the following technologies do you currently use to enable your SOX compliance programme? (Multiple responses permitted)*

Audit management and GRC platforms	54%
Data analytics and visualisation platforms	40%
Segregation of duties analysis tools	33%
Continuous monitoring	33%
Robotic process automation platforms	30%
Advanced analytics	30%
Custom scripting and/or programming	28%
Process mining platforms	19%
None	6%

Sample size: n=562 respondents

- • • *For fiscal year 2021, approximately how much time was devoted toward automating and modernising various aspects of the SOX compliance programme or otherwise enabling it with technology to drive improved efficiencies and effectiveness?*

0 hours	5%
Less than 250 hours	20%
250 to 500 hours	22%
500 to 1,000 hours	35%
1,000 to 2,000 hours	15%
2,000 to 4,000 hours	2%
Over 4,000 hours	1%

Sample size: n=562 respondents

What you need to know

- Our results indicate that, more than ever, organisations are embracing the use of technology to enable their SOX compliance programmes. A majority are leveraging audit management and GRC platforms, two out of five organisations are using data analytics and visualisation platforms, and one in three are using segregation of duties analysis tools and continuous monitoring.
- Another positive development: In fiscal year 2021, a majority of organisations devoted 500 hours or more toward automating and modernising various aspects of their SOX compliance programme or otherwise enabling it with technology to drive improved efficiencies and effectiveness. Greater use of technology and automation are among the top opportunities organisations have to incorporate greater efficiencies into their SOX compliance activities. A commitment of resources is required to achieve significant progress in this area.
- On average, 25% of an organisation's SOX compliance programme is enabled by technology. We expect this number to continue rising over time as audit management/GRC platforms further evolve, making it easier to automate control testing all while organisations continue to invest in modernising their financial systems and enhancing data consistency and quality.
- The most common challenges to automating controls testing are that many areas of the SOX control environment are not conducive to automation, and there is a perceived lack of time to explore automation opportunities due to other priorities.

- • • *For fiscal year 2022, approximately how much time will be devoted toward automating and modernising various aspects of the SOX compliance programme or otherwise enabling it with technology to drive improved efficiencies and effectiveness?*

0 hours	2%
Less than 250 hours	15%
250 to 500 hours	26%
500 to 1,000 hours	39%
1,000 to 2,000 hours	14%
2,000 to 4,000 hours	3%
Over 4,000 hours	1%

Sample size: n=562 respondents

- • • *Approximately what percentage of your SOX compliance programme utilises technology tools?*

0%	5%
1-10%	15%
11-20%	18%
21-30%	28%
31-40%	19%
41-50%	6%
Greater than 50%	6%
Unsure	3%
Average percentage	25%

Sample size: n=562 respondents

How does your organisation compare?

- • • For which of the following processes do you use technology tools in the testing of controls to comply with SOX Section 404 or other ICFR requirements? (Multiple responses permitted)

	2022	2021
IT general controls	42%	41%
IT application/configurable controls	38%	43%
Financial close process	35%	36%
Financial reporting process	32%	31%
Accounts payable process	30%	42%
Account reconciliations process	27%	37%
Payroll process	26%	28%
Accounts receivable process	25%	29%
Treasury/cash application process	25%	15%
Revenue process	23%	23%
Purchasing process	23%	17%
Fixed assets process	22%	22%
Inventory process	21%	22%
Tax process	7%	10%

Sample size: n=562 respondents

How does your organisation compare?

- • • Which of the following process areas do you plan to add automated control testing to within the next 12 months? (Multiple responses permitted)

IT application/configurable controls	32%
IT general controls	31%
Financial reporting process	31%
Financial close process	28%
Account reconciliations process	27%
Accounts payable process	27%
Accounts receivable process	24%
Payroll process	23%
Fixed assets process	23%
Purchasing process	22%
Revenue process	21%
Treasury/cash application process	21%
Inventory process	17%
Tax process	5%

Sample size: n=562 respondents

- • • Which of the following represent the challenges keeping you from automating your control testing? (Multiple responses permitted)

Many areas of the SOX control environment are not conducive to automation	51%
Lack of time to spend exploring automation due to other priorities	49%
Lack of knowledge on available tools and technology	42%
Level of effort to implement, train, govern and maintain	42%
Lack of funding and/or executive support for automation	40%
None of the above	2%

Sample size: n=562 respondents

How does your organisation compare?

SOX controls overview

- • • *For fiscal year 2021, what percentage of your organisation's total key controls would you estimate are automated key controls?*

	2022	2021
0%-5%	6%	12%
6%-10%	8%	17%
11%-20%	11%	18%
21%-30%	5%	10%
31%-40%	5%	10%
41%-50%	4%	10%
51%-75%	46%	13%
76%-100%	15%	10%
Average percentage	50%	33%

Sample size: n=562 respondents

- • • *To what extent does your organisation plan to further automate its manual processes and controls within fiscal year 2021?*

	2022	2021
We have significant plans to automate a broad range of IT processes and controls	35%	23%
We have moderate plans to automate numerous IT processes and controls	44%	39%
We have minimal plans to automate selected IT processes and controls	16%	29%
We have no plans to automate any further	5%	9%

Sample size: n=562 respondents

What you need to know

- The percentage of all key controls that are automated key controls has increased significantly – a positive trend indicating greater use of automation and technology tools. Greater use of cloud applications and workflow solutions with built-in automated controls is likely fuelling this trend.
- Further supporting the movement to increased automation, more organisations indicate they have significant or moderate plans to automate IT processes and controls in the current fiscal year.
- Overall, key control counts have risen. This is attributable to companies, along with their audit firms, requiring the split-out of controls in a variety of ways which do not always result in net incremental effort: management review controls are being split in two in order to separate out IPE; IT general controls are being inventoried by system rather than as a whole; account reconciliation controls are being split out into sub-controls; and controls are being written per interface.

- • • *To what extent does your organisation plan to further automate its manual processes and controls within fiscal year 2021?*

	SOX filer status			
	Large accelerated filer	Accelerated filer*	Smaller reporting company	Emerging growth company
We have significant plans to automate a broad range of IT processes and controls	26%	34%	49%	41%
We have moderate plans to automate numerous IT processes and controls	40%	47%	42%	50%
We have minimal plans to automate selected IT processes and controls	27%	17%	8%	6%
We have no plans to automate any further	7%	2%	1%	3%

Sample size: n=562 respondents

* Does not include smaller reporting companies.

- • • *Number of key entity-level controls*

Less than 15	10%
16-25	24%
26-35	24%
36-45	14%
46-55	6%
56-75	6%
76-95	4%
96-115	4%
More than 115	8%
Average number	45

Sample size: n=200 respondents

How does your organisation compare?

Business applications in scope

- • • For fiscal year 2021, how many business applications are in scope for Sarbanes-Oxley compliance purposes?

	2022
0	1%
1-10	8%
11-20	10%
21-30	8%
31-40	3%
41-50	7%
51-60	16%
61-70	23%
71-80	15%
81-90	7%
91-100	2%
Average number	52

Sample size: n=562 respondents

- • • What percentage of these business applications are cloud applications?

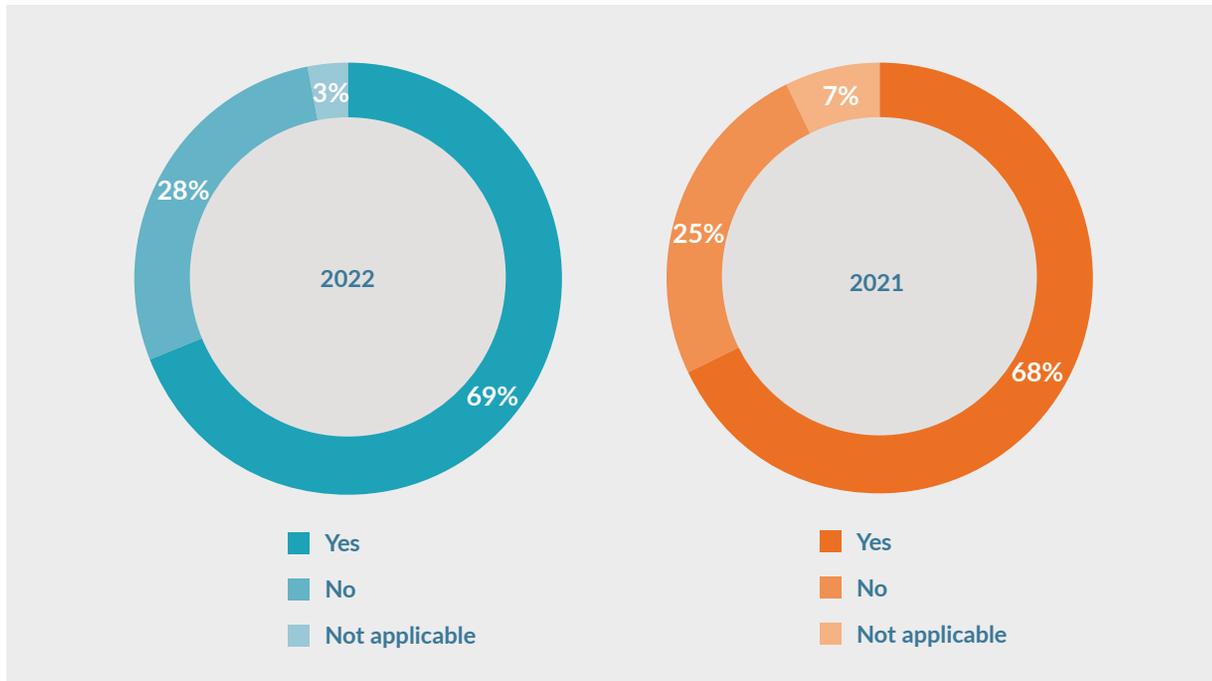
	2022
0%	1%
1%-10%	9%
11%-20%	6%
21%-30%	4%
31%-40%	4%
41%-50%	7%
51%-60%	14%
61%-70%	23%
71%-80%	17%
81%-90%	8%
91%-100%	4%
Average percentage	56%

Sample size: n=562 respondents

How does your organisation compare?

SOC reports

- • • *If you receive SOC reports, are you preparing a formal mapping between company controls and outside providers' controls (as listed in SOC reports)?*



Sample size: n=562 respondents

What you need to know

- The portion of SOC reports that have exceptions or qualified opinions has increased significantly. A number of factors are likely contributing to this trend: controls that have not been updated, possible lack of on-site staff amid remote and hybrid working models, increased staff turnover, and more. In addition, the rigour with which SOC reports are tested has improved, which means that more exceptions or qualified opinions will come through.

Testing information produced by the entity

- • • *To what extent do you test information produced by the entity (IPE) for data used to execute key controls?**

	2022	2021
We test IPE on a rotational basis with coverage every 2-3 years	21%	25%
We test IPE once a year for each key control that uses or relies upon it, and do not test it again if its source has not changed	36%	38%
We test IPE every time we test a control that uses or relies upon it	36%	27%

	Large accelerated filer	Accelerated filer**	Smaller reporting company	Emerging growth company
We test IPE on a rotational basis with coverage every 2-3 years	16%	22%	25%	25%
We test IPE once a year for each key control that uses or relies upon it, and do not test it again if its source has not changed	40%	37%	42%	34%
We test IPE every time we test a control that uses or relies upon it	34%	36%	31%	39%

Sample size: n=562 respondents

* Not shown: "Don't know" responses.

** Does not include smaller reporting companies.

What you need to know

- Organisations are performing more baseline testing of key system-generated reports used in key SOX controls. This exercise increases comfort that nothing has changed in these reports over time. When it comes to such standardised reports and SOX 404(b) compliance, both audit firms and organisations have become more risk-averse, thus more time is required to test them – a contributing factor to higher internal SOX compliance costs.

Cybersecurity

- • • During fiscal year 2021, was your organisation required to issue a cybersecurity disclosure (according to CF Disclosure Guidance: Topic No. 2)? (Shown: "Yes" percentages)



Sample size: n=562 respondents

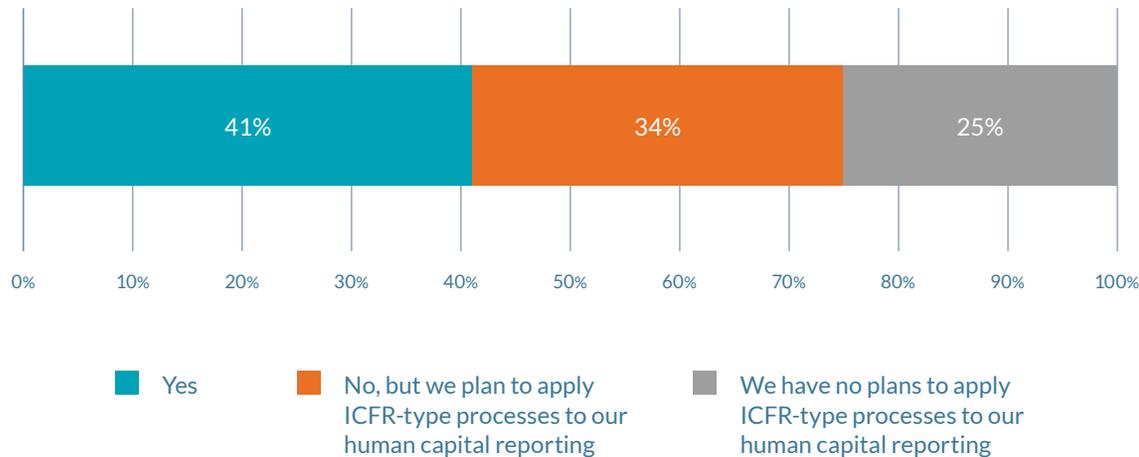
What you need to know

- Cyber breach disclosures increased by 44% in 2021, according to research firm Audit Analytics; 4% of these disclosures were cited in internal control over financial reporting disclosures.¹
- External auditors require clients to answer annual questionnaires on cybersecurity but typically stop there unless there is a breach incident to evaluate.
- It is becoming increasingly common for management to create documentation (commonly in the form of a memo) to describe and map how their system of internal control would prevent a cyber breach or security incident from impacting the integrity of financial reporting.

¹ Trends in Cybersecurity Breach Disclosures, Audit Analytics: <https://go.auditanalytics.com/l/908172/2022-04-01/6b8nh>.

Perceptions of the SOX compliance process and internal control over financial reporting

- • • *During fiscal year 2021, did your organisation apply any ICFR-type processes to your human capital reporting?*



Sample size: n=562 respondents

- • • *During fiscal year 2021, did you disclose ESG metrics and apply ICFR-type processes to that information?*

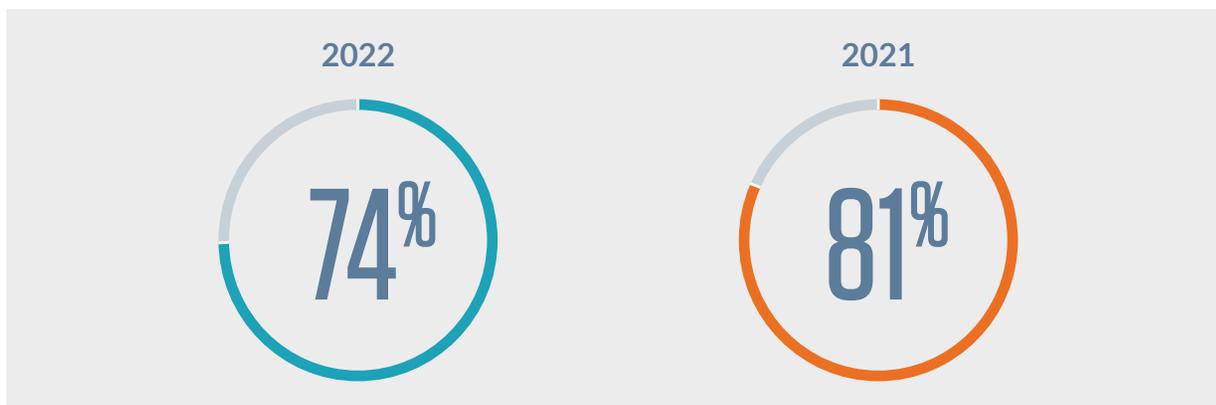


Sample size: n=562 respondents

What you need to know

- Most organisations either currently or plan to disclose ESG metrics and apply internal control over financial reporting-type processes to this information. Similarly, a majority of organisations either currently or plan to apply internal control over financial reporting-type processes to their human capital reporting.
- The human capital reporting-related results are to be expected given that in a public company, there are two executives who sign off: a CEO (or equivalent) and a CFO (or equivalent). The reporting of metrics, whether financial, human capital or ESG, is likely to be the domain of the CFO. Thus given the CFO organisation's use of ICFR for financial reporting (inclusive of the use of internal audit or financial controls organisations making sure the data is subject to scrutiny), the extension of that mindset to non-financial data is logical and expected. The data sources may be different, or at a different level, but the same concepts apply.
- With regard to functions that are supporting SOX testing efforts, there is notable growth in the use of a project management organisation (PMO) and third-party service providers for this purpose, whereas for internal audit, management and process owners, and business/financial controls units, the use is trending down.

- • • *Is internal audit involved in Sarbanes-Oxley activities in your organisation?*
(Shown: “Yes” percentages)



Sample size: n=562 respondents

- • • *What percentage of internal audit's time is spent on SOX?*

	2022	2021
Less than 25%	9%	17%
25%-49%	17%	30%
50%-74%	54%	31%
75%-100%	20%	22%
Average percentage	58%	49%

Sample size: n=562 respondents

- • • *Who in your organisation supports Sarbanes-Oxley testing efforts?*
(Multiple responses permitted)

	2022	2021
Internal audit	61%	72%
Management and/or process owners	51%	62%
Project management organisation (PMO)	50%	36%
Third-party service provider	46%	41%
Business/financial controls unit	23%	36%

Sample size: n=562 respondents

What you need to know

- With pending SEC guidance regarding climate change-related reporting, many organisations are scrambling to determine what this means for them. Specifically, their concerns are around three areas:
 1. Quantitative impact of climate-related risk to the organisation's financials
 2. Carbon calculations
 3. Internal control over financial reporting considerations
- With regard to the last point, a key question is whether organisations are applying the same level of ICFR scrutiny to ESG metrics and climate-related reporting as they are to other processes and controls as part of their SOX compliance activities. At this relatively early juncture, most organisations likely will not test the operating effectiveness of these controls until later this year or next year.

- • • *Size of organisation (outside of financial services) – by gross annual revenue*

\$10 billion or more	12%
\$5 billion - \$9.99 billion	16%
\$1 billion - \$4.99 billion	50%
\$500 million - \$999.99 million	14%
\$100 million - \$499.99 million	4%
\$25 million - \$99.99 million	1%
Less than \$25 million	3%

- • • *Size of organisation (within financial services) – by assets under management*

\$50 billion or more	12%
\$25 billion - \$49.99 billion	10%
\$10 billion - \$24.99 billion	21%
\$5 billion - \$9.99 billion	24%
\$1 billion - \$4.99 billion	28%
\$250 million - \$999.99 million	3%
Less than \$250 million	2%

- • • *Current SOX reporting status*

Beyond 2nd year of SOX compliance 404(a) and 404(b)	24%
2nd year of SOX compliance 404(a) and 404(b)	7%
1st year of SOX compliance 404(a) and 404(b)	17%
Ongoing 404(a) Sarbanes-Oxley compliance	21%
1st year of SOX compliance or ongoing 404(a)	26%
Pre-1st year SOX compliance	5%

How does your organisation compare?

ABOUT PROTIVITI

Protiviti (www.protiviti.com) is a global consulting firm that delivers deep expertise, objective insights, a tailored approach, and unparalleled collaboration to help leaders confidently face the future. Protiviti and our independent and locally owned Member Firms provide clients with consulting and managed solutions in finance, technology, operations, data, digital, legal, governance, risk and internal audit through our network of more than 85 offices in over 25 countries.

Named to the 2022 *Fortune 100 Best Companies to Work For*® list, Protiviti has served more than 80 percent of *Fortune 100* and nearly 80 percent of *Fortune 500* companies. The firm also works with smaller, growing companies, including those looking to go public, as well as with government agencies. Protiviti is a wholly owned subsidiary of Robert Half (NYSE: RHI). Founded in 1948, Robert Half is a member of the S&P 500 index.

PROTIVITI INTERNAL AUDIT AND FINANCIAL ADVISORY PRACTICE – CONTACT INFORMATION

Andrew Struthers-Kennedy

Managing Director
Global Internal Audit and Financial Advisory
+1.410.454.6879
andrew.struthers-kennedy@protiviti.com

Angelo Poulikakos

Managing Director
Leader, Technology Audit
+1.312.476.6097
angelo.poulikakos@protiviti.com

AUSTRALIA

Lauren Brown
+61.03.9948.1200
lauren.brown@protiviti.com.au

GERMANY

Tobias Nowak
+49.89.552.139.321
tobias.nowak@protiviti.de

THE NETHERLANDS

Marc Geleijn
+31.62.912.7569
marc.geleijn@protiviti.nl

BELGIUM

Jaap Gerkes
+31.20.346.0400
jaap.gerkes@protiviti.nl

INDIA

Sachin Tayal
+91.124.661.8640
sachin.tayal@protivitiglobal.in

SINGAPORE

Ann Koh
+65.6220.6066
annchi.koh@protiviti.com

BRAZIL

Heloisa Macari
+55.31.3181.0144
heloisa.macari@protiviti.com.br

ITALY

Alberto Carnevale
+39.02.6550.6301
alberto.carnevale@protiviti.it

SOUTH AFRICA

Lindani Dhlamini
+27.011.797.6800
ldhlamini@skxprotiviti.co.za

CANADA

Ram Balakrishnan
+1.647.288.8525
ram.balakrishnan@protiviti.com

JAPAN

Yasumi Taniguchi
+81.3.5219.6600
yasumi.taniguchi@protiviti.jp

SWITZERLAND

Milena Danielsen
+41.43.508.9747
milena.danielsen@protiviti.ch

CHINA (HONG KONG AND MAINLAND CHINA)

David Cheung
+86.21.5153.6900
+852.2238.0499
david.cheung@protiviti.com

MEXICO

Roberto Abad
+52.55.6729.8070
roberto.abad@protivitiglobal.com.mx

UNITED KINGDOM

Mark Peters
+44.207.389.0413
mark.peters@protiviti.co.uk

FRANCE

Bernard Drui
+33.1.42.96.22.77
bernard.drui@protiviti.fr

MIDDLE EAST

Sanjay Rajagopalan
+965.2295.7772
sanjay.rajagopalan@protivitiglobal.me

UNITED STATES

Andrew Struthers-Kennedy
+1.410.454.6879
andrew.struthers-kennedy@protiviti.com



THE AMERICAS

UNITED STATES

Alexandria, VA
Atlanta, GA
Austin, TX
Baltimore, MD
Boston, MA
Charlotte, NC
Chicago, IL
Cincinnati, OH
Cleveland, OH
Columbus, OH
Dallas, TX
Denver, CO

Ft. Lauderdale, FL
Houston, TX
Indianapolis, IN
Irvine, CA
Kansas City, KS
Los Angeles, CA
Milwaukee, WI
Minneapolis, MN
Nashville, TN
New York, NY
Orlando, FL
Philadelphia, PA
Phoenix, AZ

Pittsburgh, PA
Portland, OR
Richmond, VA
Sacramento, CA
Salt Lake City, UT
San Francisco, CA
San Jose, CA
Seattle, WA
Stamford, CT
St. Louis, MO
Tampa, FL
Washington, D.C.
Winchester, VA
Woodbridge, NJ

ARGENTINA*
Buenos Aires

BRAZIL*
Belo Horizonte*
Rio de Janeiro
São Paulo

CANADA
Toronto

CHILE*
Santiago

COLOMBIA*
Bogota

MEXICO*
Mexico City

PERU*
Lima

VENEZUELA*
Caracas

EUROPE, MIDDLE EAST & AFRICA

BULGARIA
Sofia

FRANCE
Paris

GERMANY
Berlin
Dusseldorf
Frankfurt
Munich

ITALY
Milan
Rome
Turin

THE NETHERLANDS
Amsterdam

SWITZERLAND
Zurich

UNITED KINGDOM
Birmingham
Bristol
Leeds
London
Manchester
Milton Keynes
Swindon

BAHRAIN*
Manama

KUWAIT*
Kuwait City

OMAN*
Muscat

QATAR*
Doha

SAUDI ARABIA*
Riyadh

UNITED ARAB EMIRATES*
Abu Dhabi
Dubai

EGYPT*
Cairo

SOUTH AFRICA*
Durban
Johannesburg

ASIA-PACIFIC

AUSTRALIA
Brisbane
Canberra
Melbourne
Sydney

CHINA
Beijing
Hong Kong
Shanghai
Shenzhen

INDIA*
Bengaluru
Chennai
Hyderabad
Kolkata
Mumbai
New Delhi

JAPAN
Osaka
Tokyo

SINGAPORE
Singapore

