

THE LANDSCAPE OF OBSERVABILITY IN 2026:

Balancing efficiency and innovation in the public sector

A Survey of Observability Decision Makers



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Introduction

As observability continues to mature, it has firmly established itself as a mission-critical capability for global public sector organizations. With adoption deepening, the focus has shifted from technical implementation and architectural scalability issues to optimizing investments. Teams are no longer debating the value — they are focusing on balancing innovation with cost and efficiency and translating telemetry data into tangible mission outcomes.

This evolution is unfolding alongside major technology shifts: the rapid rise of Generative AI (GenAI), including Agentic AI, and growing adoption of OpenTelemetry (OTel). Observability leaders now face the dual challenge of maximizing established solutions while embracing emerging innovations. This report examines the current state of the observability landscape across the global public sector: both civilian and defense agencies in the federal government, state and local government, and public education institutions. How are observability teams leveraging their experience and capabilities to support desired outcomes? Are attitudes and approaches to cost control evolving? Has the use of observability solutions expanded beyond the core IT and cloud operations teams? How are organizations leveraging innovative technologies like GenAI and OTel to meet their observability goals?

The following report, sponsored by Elastic, is based on a global survey of more than 300 IT leaders with decision making responsibility for observability solutions at a public sector organization with more than 500 employees. Respondents represent regions across the globe, including North America (87%), EMEA (10%), and APAC (3%).



Key Findings for the Public Sector

Observability continues to evolve and mature

- 60% characterize their observability practice as mature or expert
- 66% regularly experience unexpected costs or overages related to observability tools
- 95% are taking steps to reduce observability costs
- 73% report cybersecurity teams leverage their observability solutions

GenAI is upleveling teams and increasing observability efficiency

- 84% currently use GenAI for observability; this number is projected to grow to 97% within two years
- 75% use or plan to use the GenAI capabilities built into vendor observability solutions
- 31% are using Agentic AI for observability today, with a further 32% planning to use in the next two years
- Expert or mature (44%) observability teams are much more likely to use Agentic AI than in-process or early-stage (11%) teams
- 32% have already experienced significant gains from use of GenAI for observability; that number is projected to double (65%) within the next five years

OpenTelemetry (OTel) momentum builds

- 81% are using or evaluating OTel
- 97% of those with OTel in production say it is very important that observability solutions are OTel compliant
- 73% are using or planning to use vendor sourced OTel distributions

Logging solution investments involve interoperability and collaboration

- Most common capabilities needed for new logging solutions include ability to share data (58%), interoperability (55%), and affordability (51%)
- In addition to IT operations, cybersecurity, and IT leadership, 95% identified other teams that would be involved in purchase decisions for logging solutions



Detailed Findings: Observability continues to evolve and mature

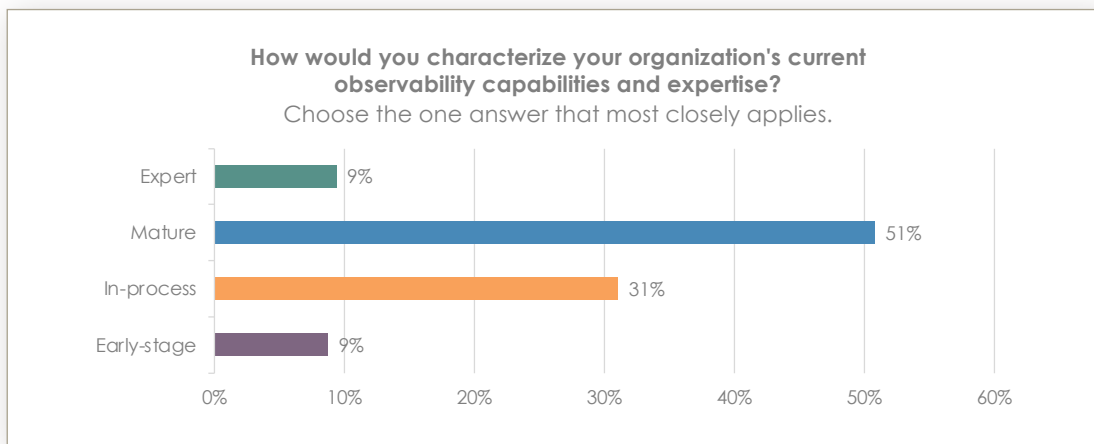
Observability capabilities and expertise are advancing quickly

Great observability practices require a strong mix of tooling, expertise, team structure, and culture. Each of these areas requires evolution and experimentation to get it right for an organization's technology footprint and overall goals.

To understand where public sector IT teams are in their observability journey, we asked participants to identify their maturity level based on the following definitions:

- **Expert** – We have implemented a strong observability practice based on comprehensive data collection and a modern AI-based technology ecosystem that supports our business.
- **Mature** – We are leveraging AIOps and already have or are considering establishing a cross-functional center of excellence.
- **In-process** – We are working on more effectively utilizing modern technologies for efficiency, scale, visibility, and root cause analysis and have fairly good visibility across our environment.
- **Early-stage** – Our primary source of intelligence is log data which we are in the process of enriching and transforming to gain better insights. We are looking to expand visibility across additional signal types: metrics, tracing, and profiling.

The data clearly demonstrates that public sector teams have made significant progress with observability, with only 9% reporting that they are still early with their adoption. Just over half (51%) of observability decision makers describe themselves as “mature” while a further 9% characterize their practice as “expert.” Almost a third (31%) put themselves in the middle of the adoption cycle, describing themselves as “in-process.”

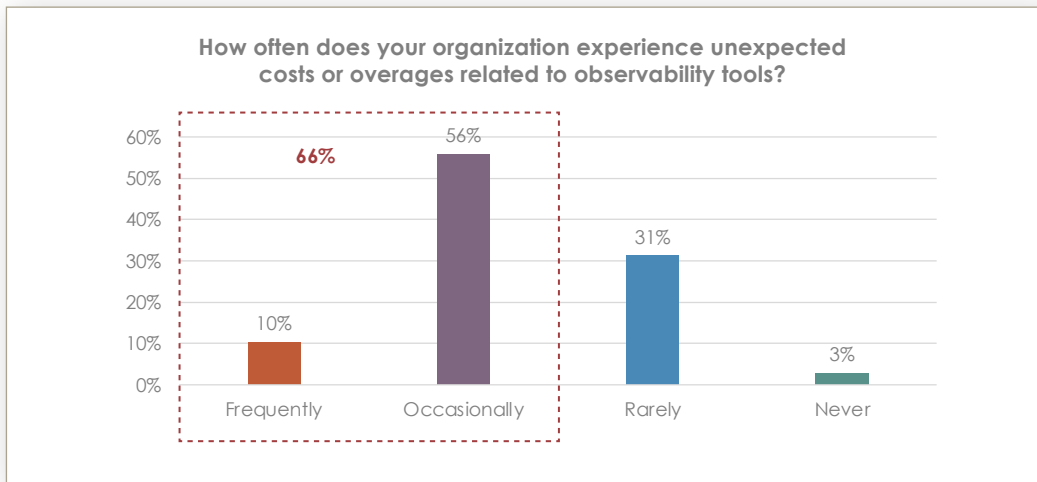




Organizations are looking to control observability costs

As any practice evolves and teams become more skilled, there is increased focus on the value delivered for the investment. Cost management assumes a larger role in evaluating outcomes for public institutions.

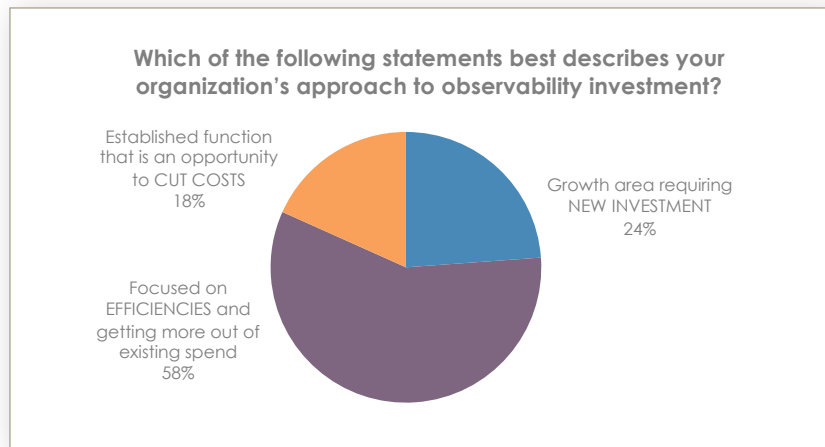
Observability is one of the areas where cost management is highlighted due to unexpected costs. Unplanned data volumes, spikes in cloud infrastructure use, unexpected audits, variable tool licensing models, and more can all contribute to unpleasant surprises when invoices arrive. These types of unexpected costs are the norm for observability teams. **Almost all (97%) have experienced unexpected costs or overages related to observability tools, with two-thirds (66%) reporting that they happen regularly.** This includes an alarming 10% that report cost surprises happen frequently. Larger organizations are much more likely to report cost issues. 25% of observability decision makers at organizations with more than 5,000 employees report frequent experiences with unexpected costs or overages compared to only 9% at organizations with just 500 to 5,000 employees.



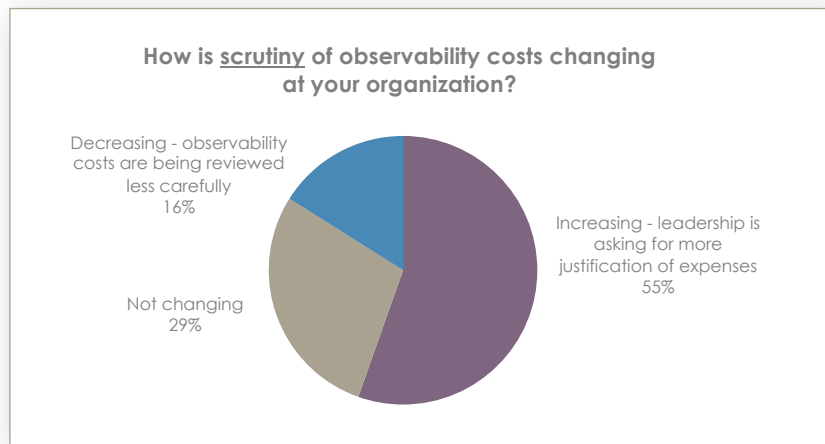
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Observability decision makers who have seen a rapid evolution in their capabilities in recent years, and experienced the significant investments made to achieve those gains, may need to shift gears when building budgets in the coming years. Only 24% of public sector organizations view observability as a growth area, requiring new investment. Fortunately, only a few (18%) see observability as an established function that is a candidate for cost cutting. **Most (58%) see observability as a place to optimize budgets and get more value from existing spending by looking for efficiencies.**



This focus on efficiency may be the new normal for many observability decision makers, in alignment with national and regional priorities. **More than half (55%) report that their leadership is increasingly asking for justification of observability expenses.**

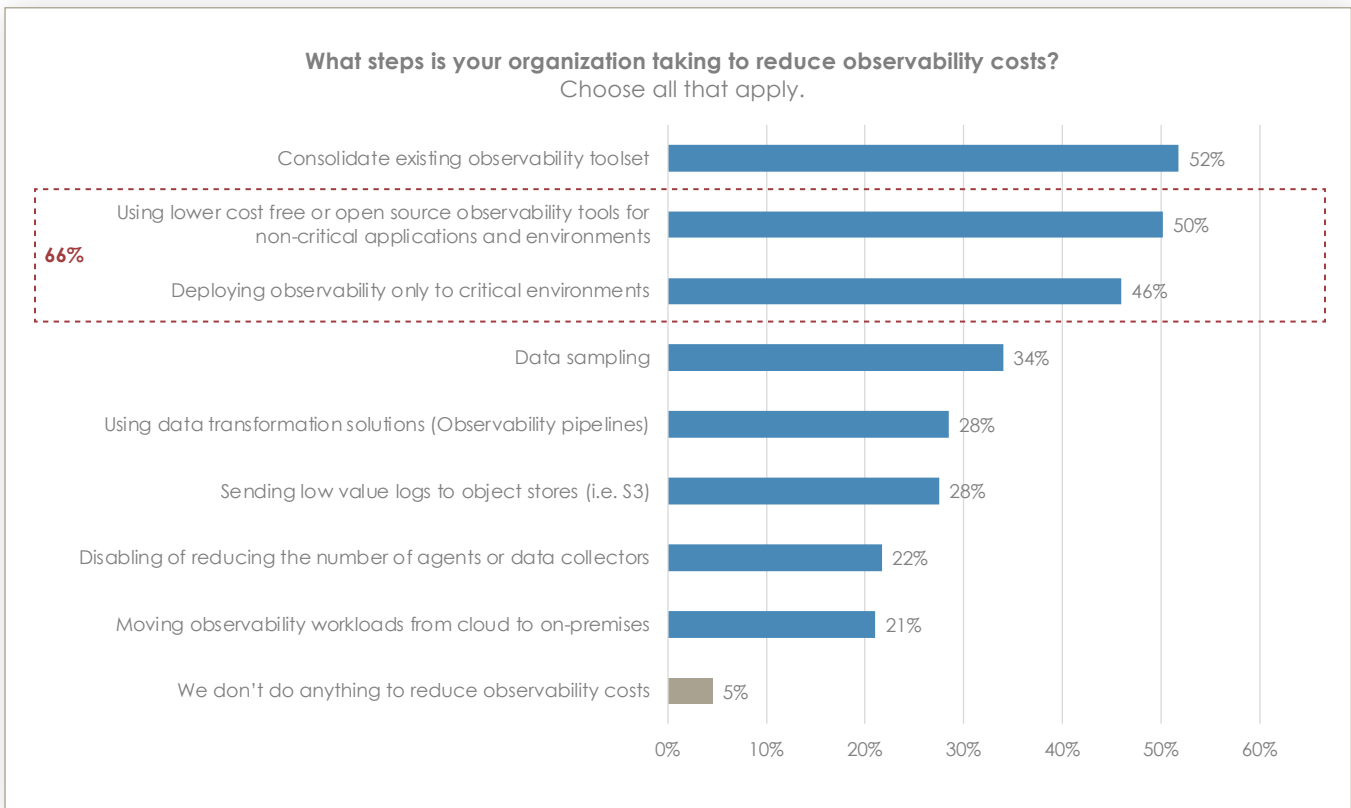


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Observability decision makers are stepping up to deliver better cost management in the face of increasing expectations for operational efficiency. **The vast majority of teams (95%) are taking steps to reduce observability costs** including evaluating tool licensing costs, data volume expenses, infrastructure workloads, and more. These are detailed in the graph below, with consolidating existing observability toolsets at the top of the list (52%).

While most of these approaches are very sensible, it is notable that many (66%) are choosing to use a lower cost tool (50%) or eliminate observability (46%) for their less-critical environments as a way to cut costs. This could potentially create risk. Non-critical environments also require monitoring and analysis since problems can cascade into Tier 1 environments.

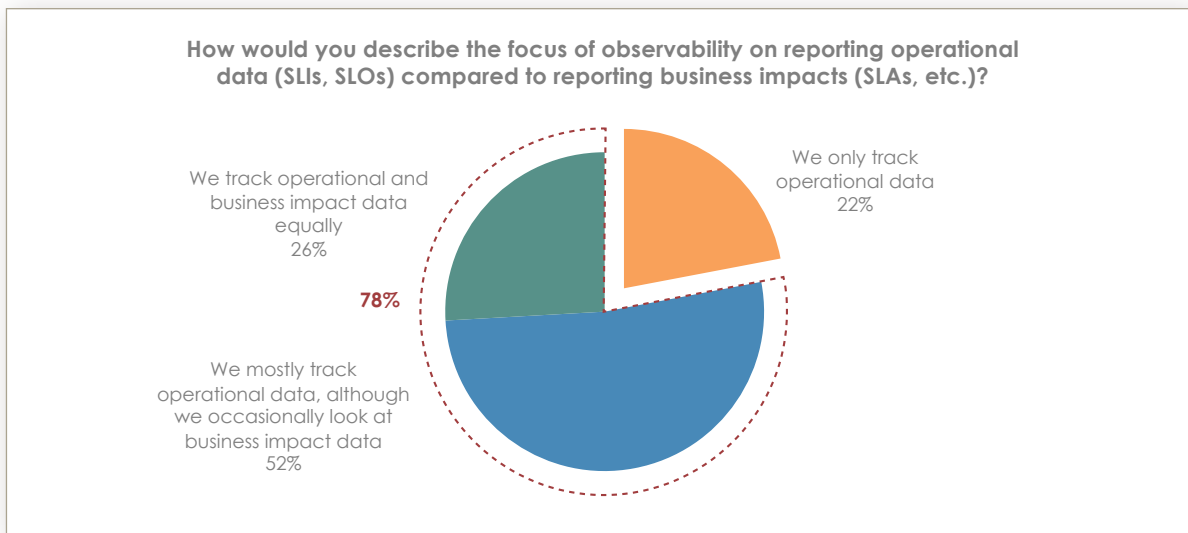




Observability is evolving from IT priority to organizational impact

As observability leaders strive to optimize value and cost, their perspective is broadening from the original goal of keeping IT systems and applications running, towards understanding how their efforts can improve broader organizational and mission outcomes. As this research digs into the details of these efforts, a clear pattern emerges: observability teams see value in understanding overall impacts on their organizations and missions, but they still struggle to fully deliver with their current approaches.

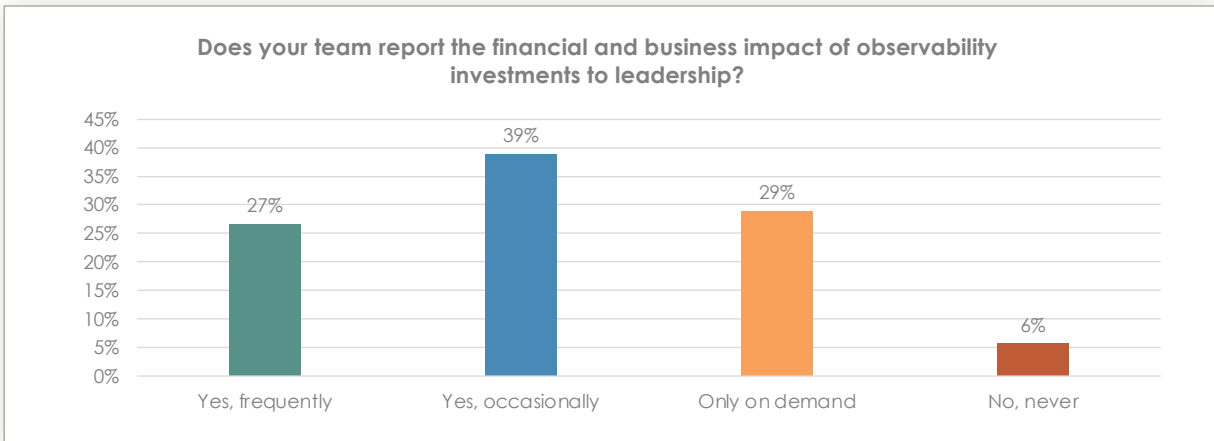
Observability teams who consider their job to be just about operational data and are focused on system performance (SLIs, SLOs, etc.) are becoming less relevant, with only 22% indicating that is their team's focus. More than three-quarters (78%) are using observability data to report on business impact, but the transition to consider business impact data (SLAs, etc.) at an equal level as operational data is slow. A quarter (26%) put business impact metrics at the same level of importance as operational metrics. **Most observability teams (52%) focus primarily on operational data, with business impact data a secondary consideration.**



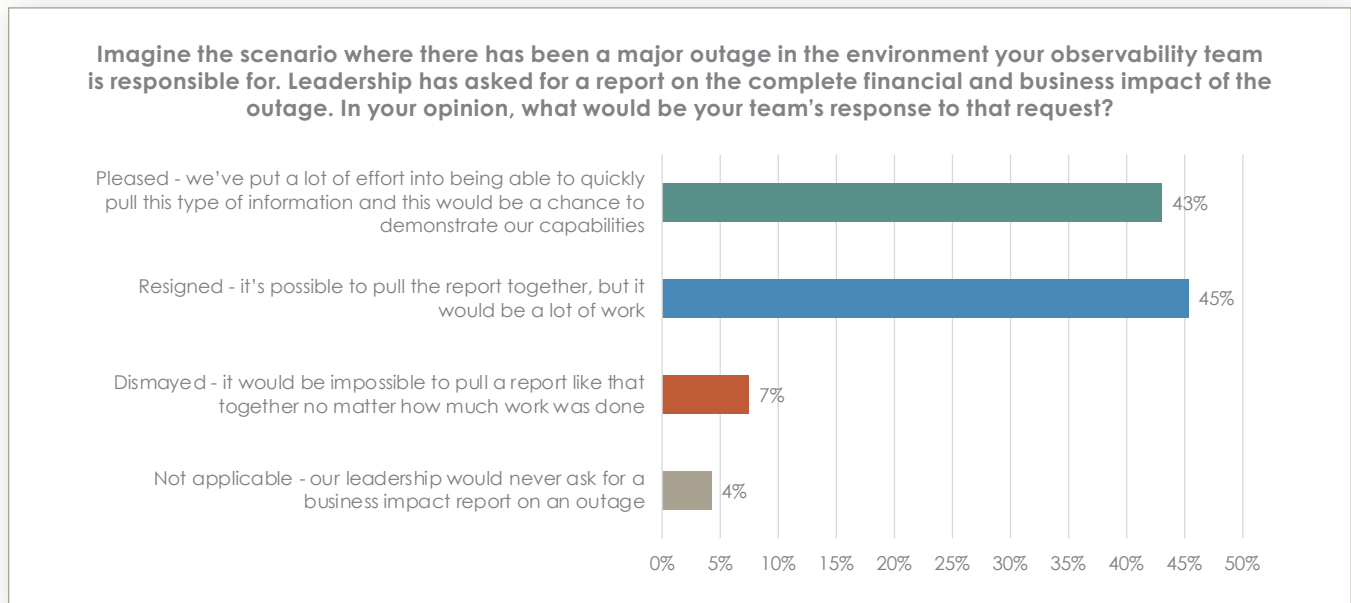
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A similar pattern emerges when examining how teams report the financial and business impact of observability investments to leadership. While the vast majority of observability teams do report impacts to their leadership (94%), only a few have fully integrated it into processes and report outcomes regularly (27%). For most, this reporting happens only occasionally (39%) or when specifically requested by leadership (29%).



There are two factors that drive observability teams' focus on operational and mission impact. First is the culture and understanding of importance. Once a team embraces an interest and ability to consider business impacts, the next barrier will be having the infrastructure to do the necessary reporting easily. This is a problem that many observability teams face. **Just over two in five teams (43%) have the ability to quickly pull together a report on the complete financial and business impact of a major business outage.** Fewer than half (45%) report their teams could put together the report, but it would be a significant effort. For some (7%) this would be an impossible task.

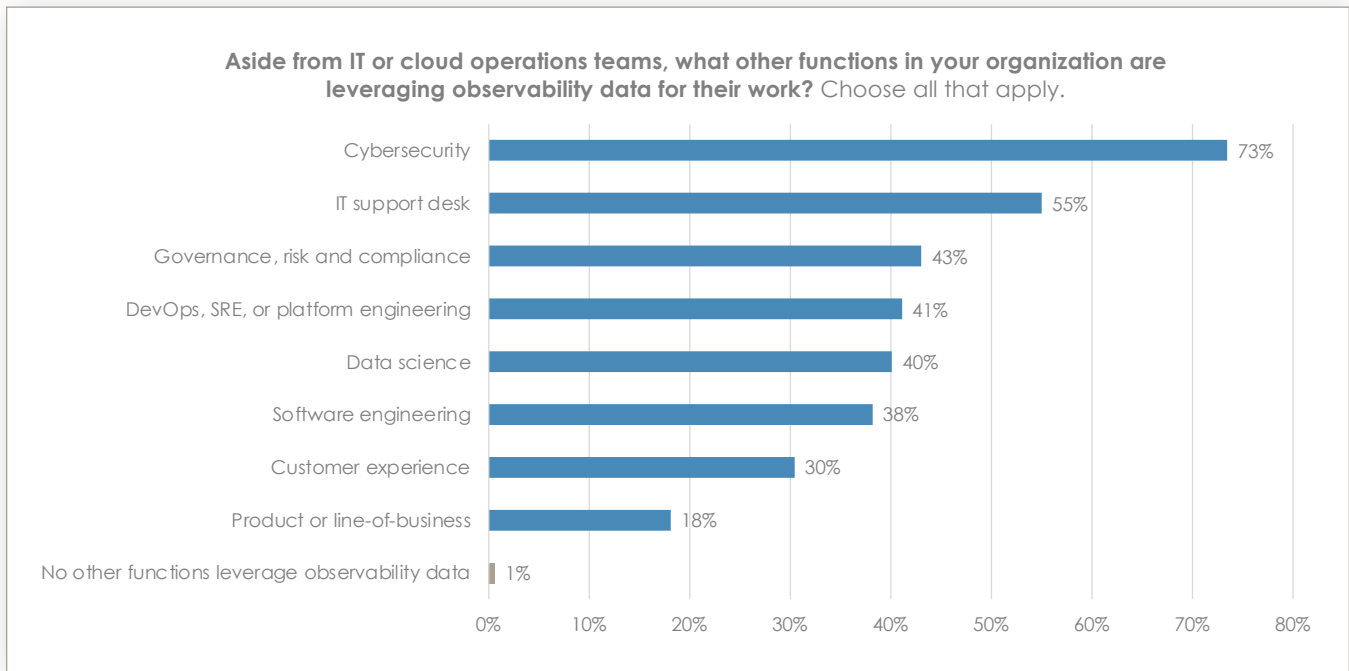


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Observability is converging with compliance, regulation, and cybersecurity

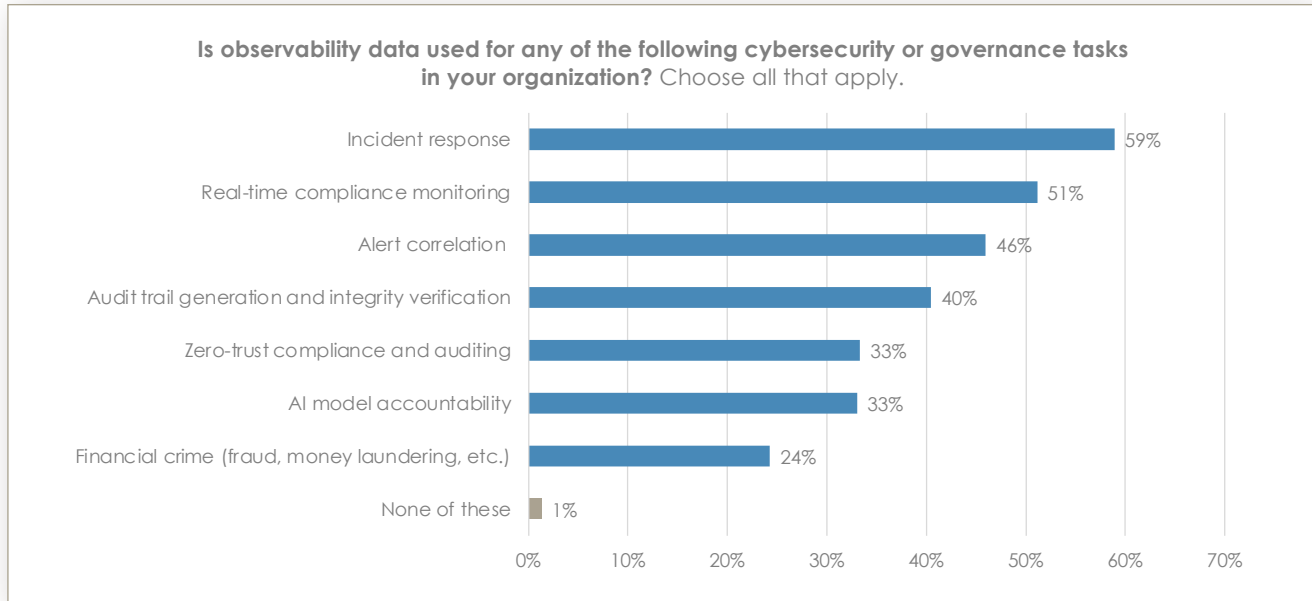
Observability investments are typically initiated to meet the needs of the IT and cloud operations teams, but one of the benefits of more mature practices is that other functions — departments, divisions, units, or operational areas — are also seeing value. It is typical (99%) for these additional functions to leverage observability data. **At many organizations (66%) there are three or more teams in addition to the IT and cloud operations teams that benefit from observability data, with cybersecurity (73%) being the most frequent users.** Other teams using observability data include IT support desk (55%), GRC (43%), DevOps or Site Reliability Engineering (41%), data science (40%), software engineering (38%), customer experience (30%), and product functions (18%).



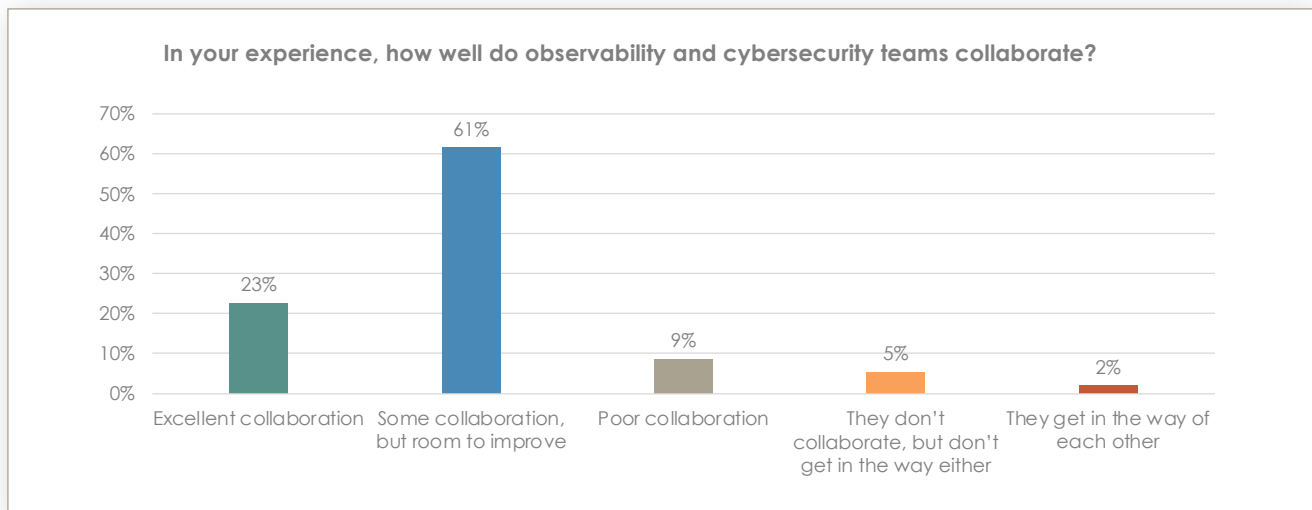
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Observability data is widely used for a variety of cybersecurity and governance tasks (99%). The most frequently reported tasks that use observability data include incident response (59%) and real-time compliance monitoring (51%).



Given that cybersecurity teams are active users of observability data and that a wide range of security tasks leverage it, this research wanted to capture perceptions on how these teams work together. This is rarely a problem area, with only 7% characterizing their teams as not collaborating, but participants frequently agree that there is room to improve (61%).



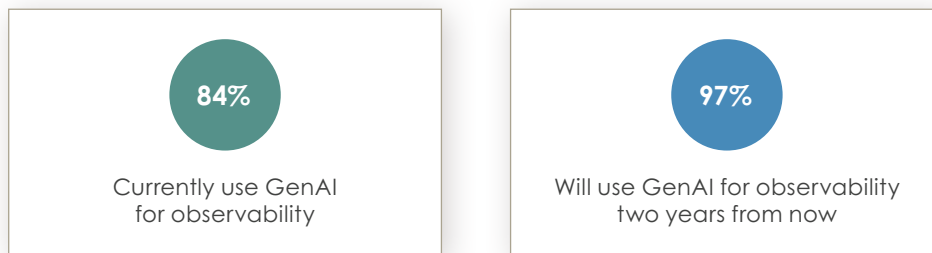


Detailed Findings: GenAI is upleveling teams and increasing observability efficiency

GenAI is already widely used for observability, with expectations for strong growth

The launch of Generative AI (GenAI) has taken the world by storm. The ability to problem solve using natural language and Large Language Models (LLMs) has been a game changer across industries and tasks. Observability is no exception.

GenAI has already been widely adopted for observability in the public sector, with **84% reporting that their teams already use some form of GenAI**. This number is expected to grow. Among the few organizations that haven't adopted GenAI yet, most plan on adding GenAI functionality to their existing observability solution set, for a **total of 97% reporting that they will use GenAI for observability two years from now**.

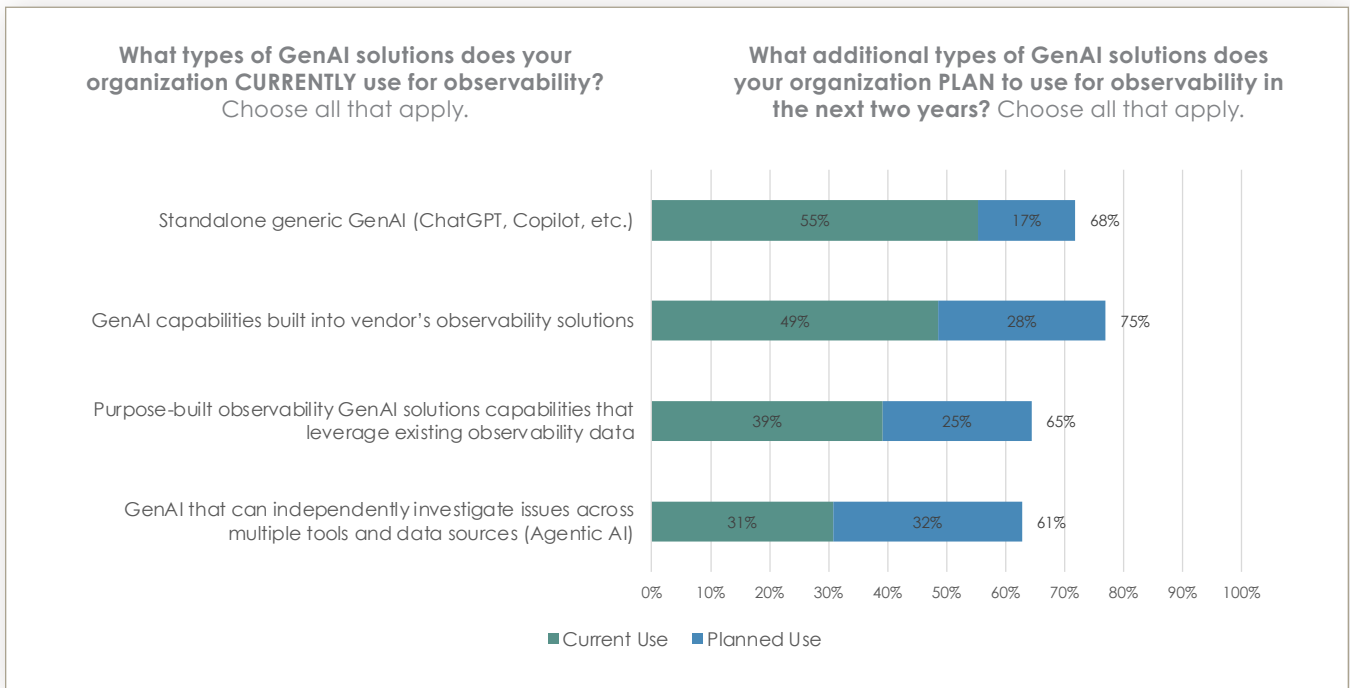


Observability decision makers have frequently demonstrated openness to trying new approaches, experimenting with a range of approaches to see what works best for their teams and organizational goals. GenAI adoption is following this pattern, with no single adoption path.

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For now, organizations are more likely to be using standalone, generic GenAI (55%) or built-in GenAI capabilities in their existing tools (49%). These are the two types of GenAI with the easiest adoption path as neither requires additional development or huge integration efforts. While these two approaches currently have similar adoption levels, observability decision makers are expecting to add built-in GenAI more rapidly (28% vs. 17% for standalone generic GenAI). As a result, **two years from now the most commonly used type of GenAI for observability will be capabilities built into existing solutions (75%)**. Both purpose-built observability GenAI and Agentic AI are drawing interest, but at a much slower rate, unsurprisingly given the additional effort needed to integrate and/or build these technologies.



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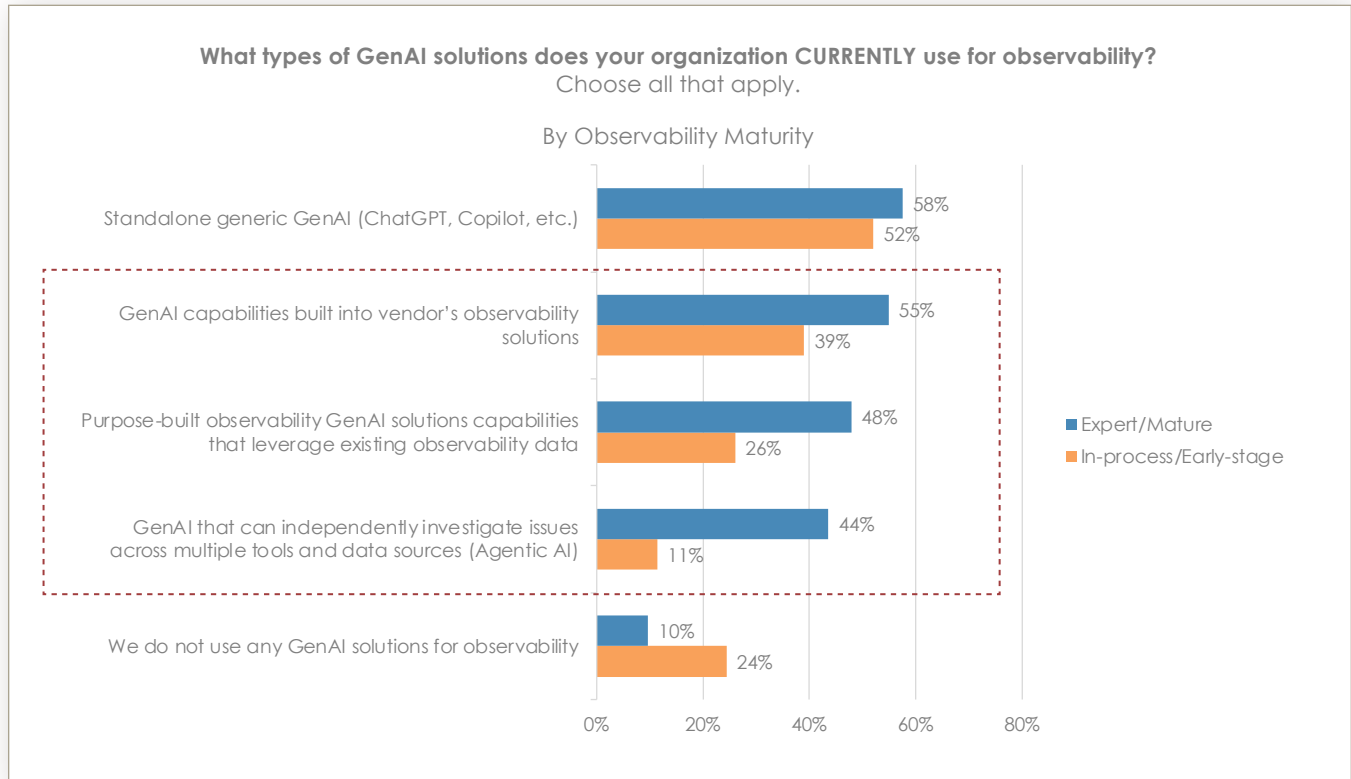
Public sector organizations use more types of GenAI as observability practices mature

The type of GenAI used for observability evolves in a very obvious way as capabilities and expertise mature. Drilling down into the type of GenAI solutions that organizations are currently using for observability, we see three clear patterns.

First, consider the bottom bar on the chart below, which represents the organizations that are not using any type of GenAI for observability. Early-stage and in-process organizations are more than twice as likely not to be using GenAI at all (24%) compared to expert or mature teams (10%).

Second, all levels of maturity use standalone GenAI at a fairly similar level. Consider the top bar on the chart below, and we see there is only slightly more use of ChatGPT-style solutions among more mature observability teams. This data reflects the ease of getting started with this type of basic GenAI.

Finally, consider how observability-specific GenAI solutions map to levels of maturity. Whether it is GenAI built into existing observability solutions, purpose-built GenAI for observability, or Agentic AI, **all observability-specific GenAI solutions follow a pattern where additional maturity correlates to a notable jump in use.** Observability-specific GenAI is clearly seen as particularly valuable among the more mature users of observability solutions.



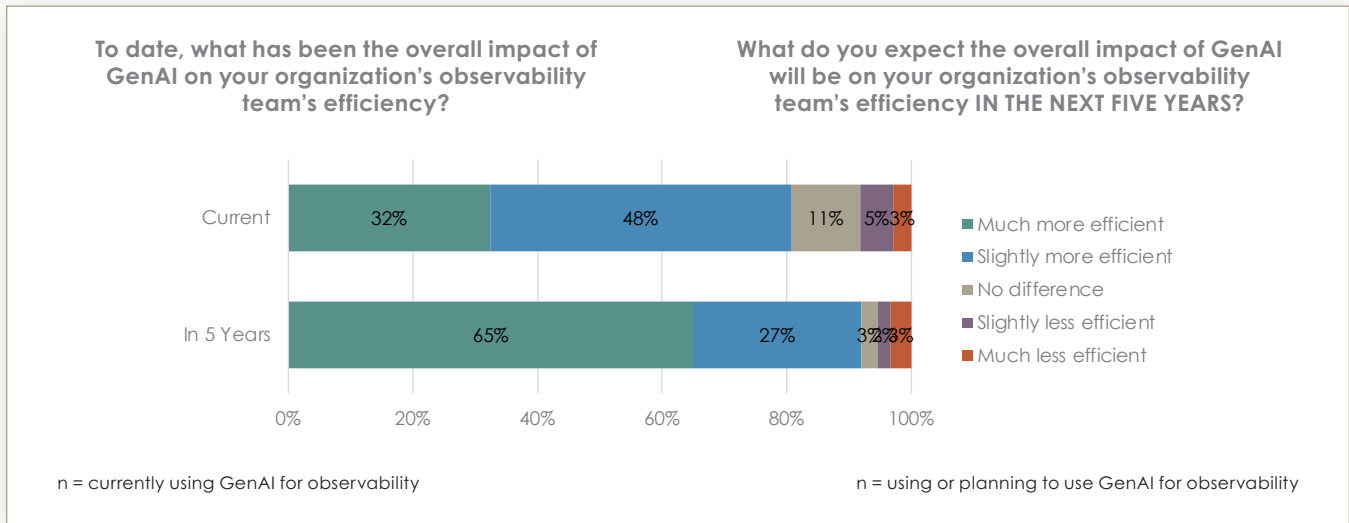
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GenAI is already positively impacting efficiency, with significant gains expected

Observability decision makers are very clear about their opinions of GenAI. Currently GenAI is helpful, but expectations are high for much better results in the future. Teams that are currently using GenAI were overall positive about its impact on efficiency, with 80% saying that it was making their teams more efficient. That number increases to 92% when these same stakeholders are asked about expectations for efficiency gains five years from now.

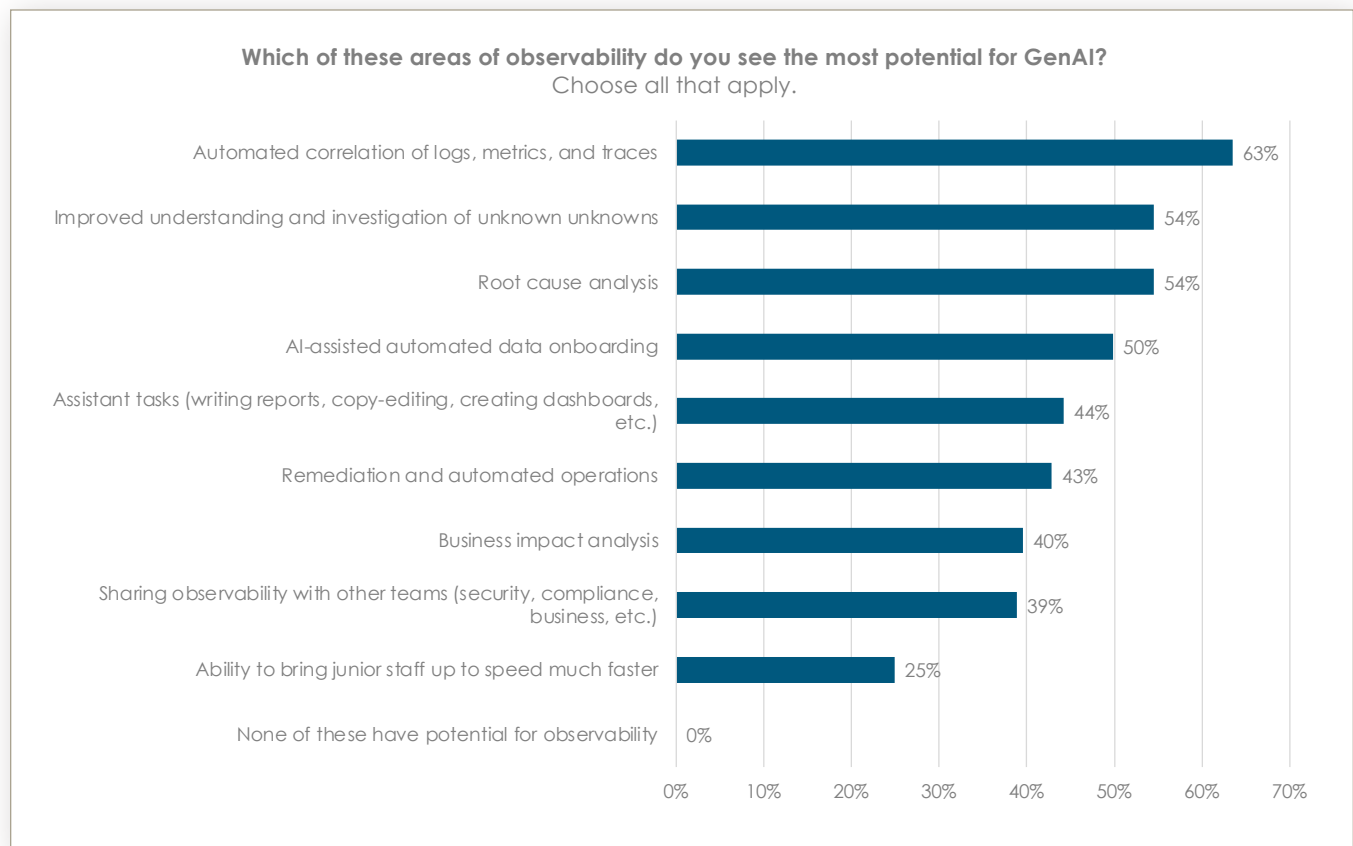
It is more dramatic to consider the scope of the impact expected in the next five years. The number who report they are currently “much more efficient” as a result of GenAI for observability is only about a third (32%). This number jumps to two-thirds (65%) when the same respondents are asked about the impact they expect to see five years from now—**doubling the expectations compared to the current experience.**



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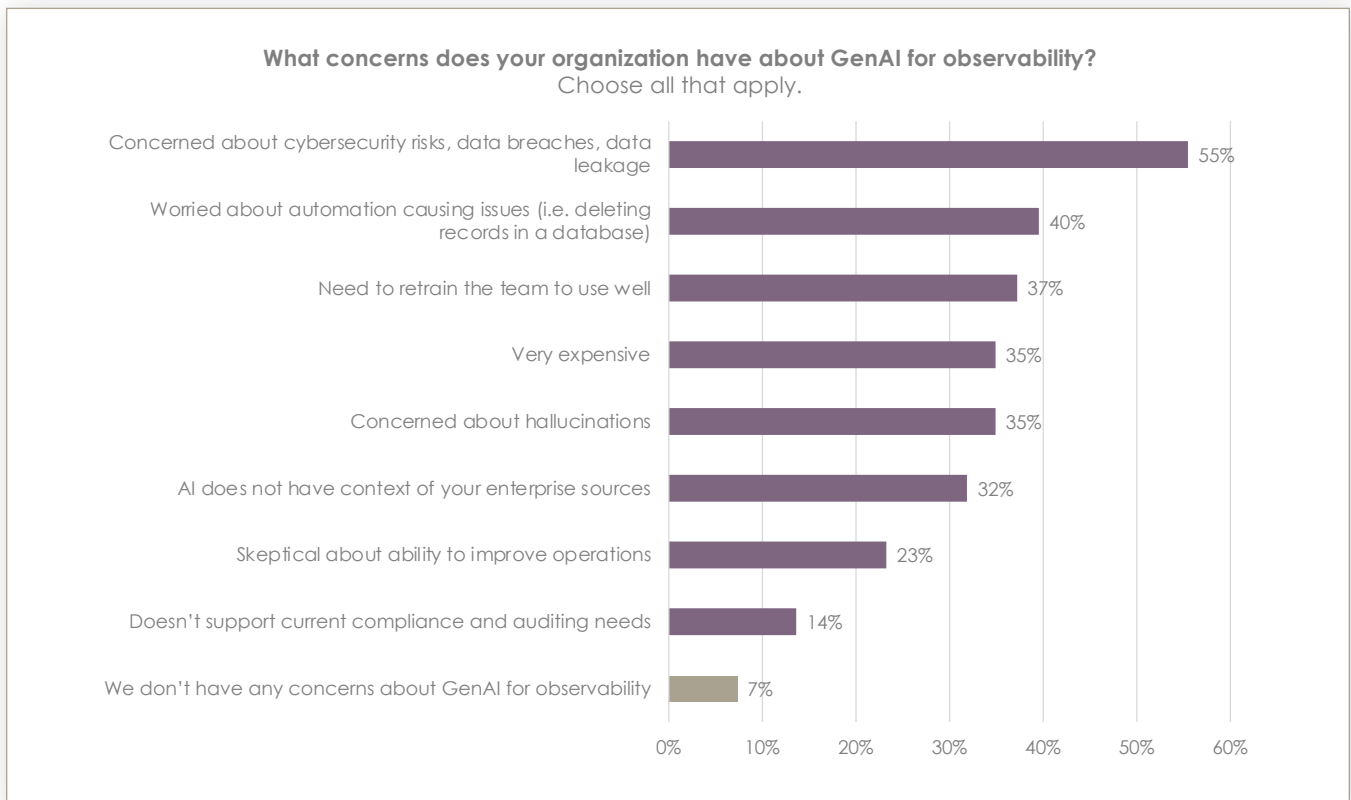
Even the observability decision makers who are most negative about the impact of GenAI on their team's efficiency, do see that there is potential for benefit. **All (100%) view GenAI as having potential for observability.** Our audience had a clear top use for GenAI and observability: automated correlation of logs, metrics, and traces (63%). There are also strong expectations for improved understanding and investigation of unknown unknowns (54%), root cause analysis (54%), and AI-assisted automated data onboarding (50%).





Concerns must be addressed to gain full value from GenAI for observability

We have established that observability decision makers are generally positive about both the current and potential value of observability; however, concerns persist. These must be addressed to achieve the potential gains. **The majority (93%) report that their organization does have concerns about AI for observability.** The most frequently reported issue is security (55%) including concerns about cybersecurity risks, data breaches and data leakage. Other concerns cited include potential issues with automation, such as deleting information (40%), training existing staff (37%), cost (35%), worries about hallucinations (35%), and more.



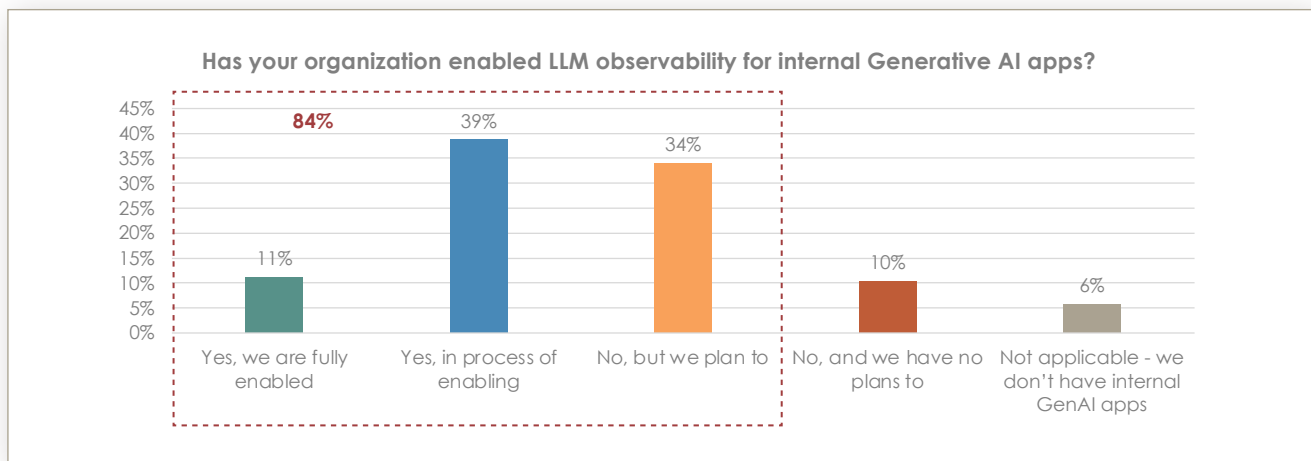
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Public sector organizations are implementing observability for their internal LLMs, but it is a work in progress

This research was primarily interested in understanding how teams are leveraging GenAI to implement and deliver observability. We also wanted to consider the opposite question: are organizations using observability to manage their internally developed GenAI solutions? The answer is that they will, but they're still working on it.

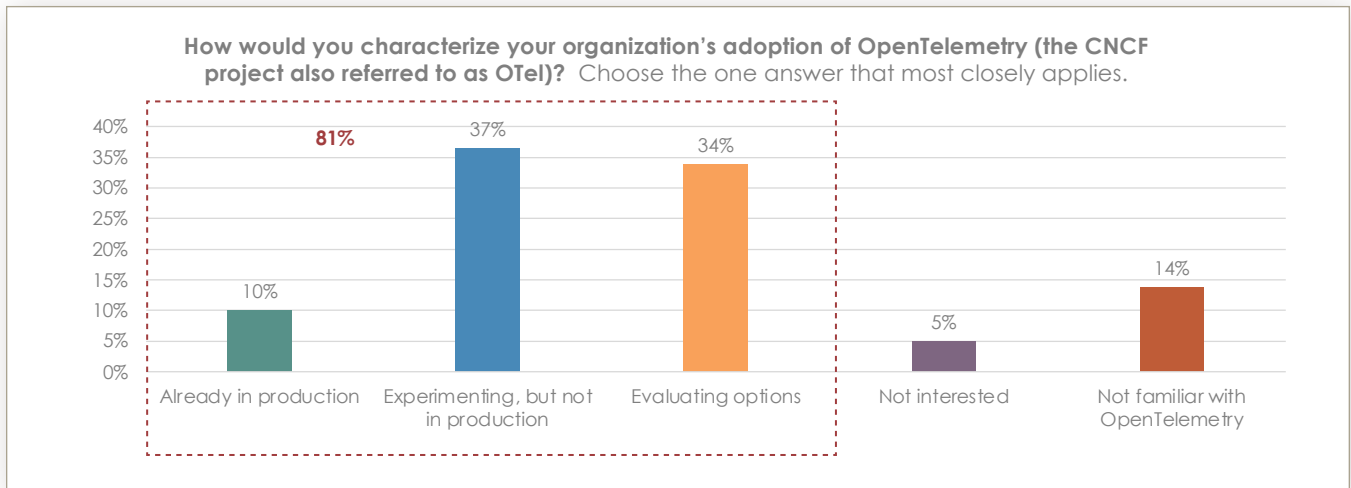
Most (84%) expect to enable LLM observability for their internal GenAI apps, but only 11% have already enabled the capabilities. 34% have not even started, although they do have plans to implement. It should be noted that internally developed GenAI apps are ubiquitous, with only 6% reporting that their organization will not be developing them.





Detailed Findings: OpenTelemetry momentum builds OpenTelemetry adoption takes a notable step forward

OpenTelemetry, a CNCF project often abbreviated as OTel, is an observability framework and toolkit designed to create and manage telemetry data such as traces, metrics, and logs. OpenTelemetry is tool agnostic and focused on open standards that allow it to be used with any observability solution that is OTel compliant. Our findings demonstrate that there is already significant interest in OpenTelemetry among observability teams in the public sector, with 81% reporting activity with OTel. However, there is work to be done, as only 10% report that they are already in production with their initiative.



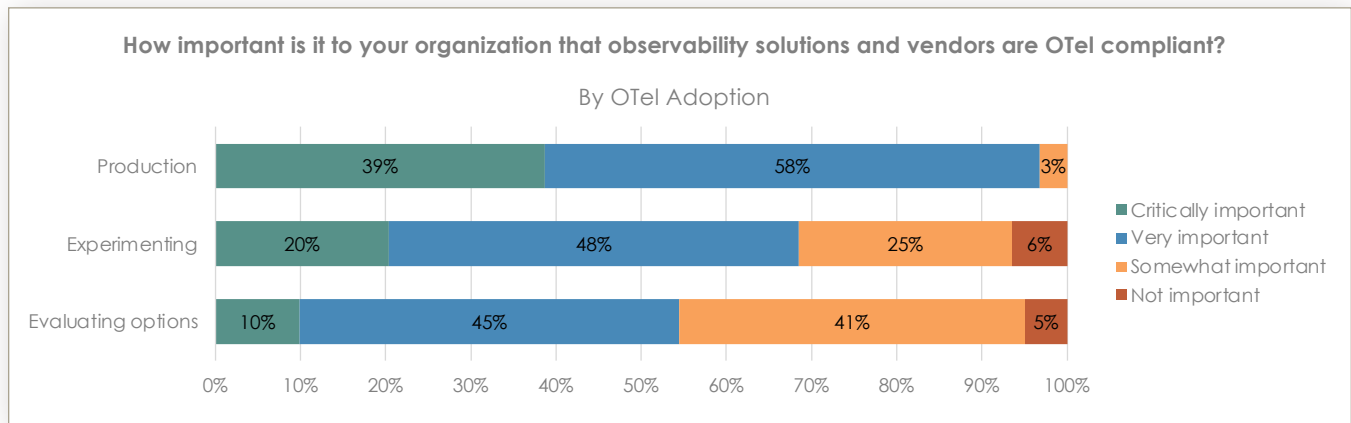
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Vendor support for open standards becomes increasingly important as OTel projects move into production

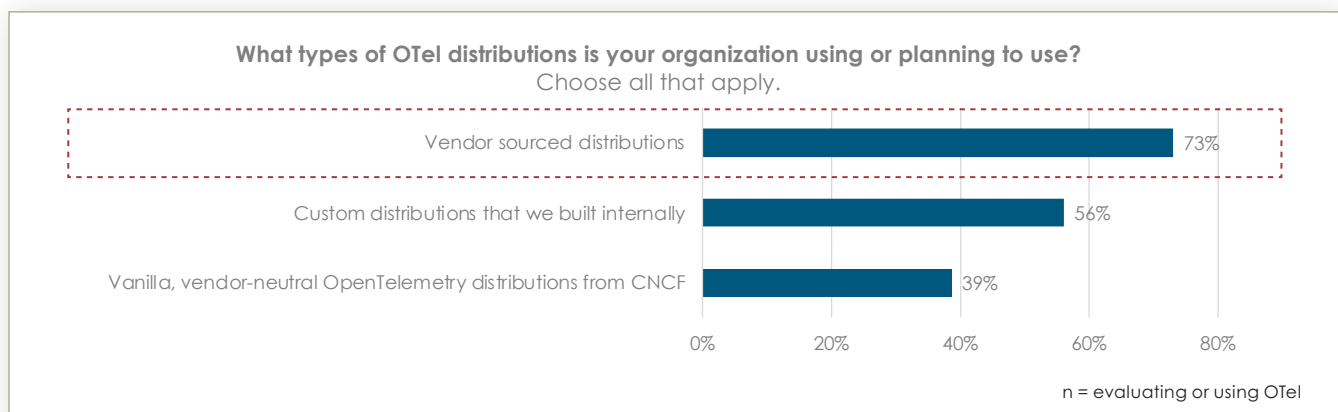
Industry standards like OpenTelemetry often take time to develop and establish themselves. Customer interest increases vendor support, which in turn creates more interest, adoption, and momentum for these standards over time. The data indicates that this industry cycle is currently happening with OTel and will continue in 2026.

As projects move from evaluation, to experimentation, to production, the importance of OTel compliance in their observability solutions increases dramatically. **The vast majority (97%) of observability teams with OTel in production say that OTel compliance is critically or very important.** This same number is only 55% for teams that are still in the early stages of evaluating options for OTel adoption.



Clear preference for vendor sourced OTel distributions

There are multiple OTel distribution options available, each with their own strengths and weaknesses. There are the “vanilla” distributions from the CNCF that are readily available and vendor neutral. A second option is building custom distributions of OTel to meet organizational needs. A final option is OTel distributions from commercial vendors with specific capabilities and enterprise features and support. This research shows that OTel adopters in public sector organizations are more likely to prefer vendor sourced distributions (73%) while vanilla, vendor-neutral distributions are the least likely to be used (39%).



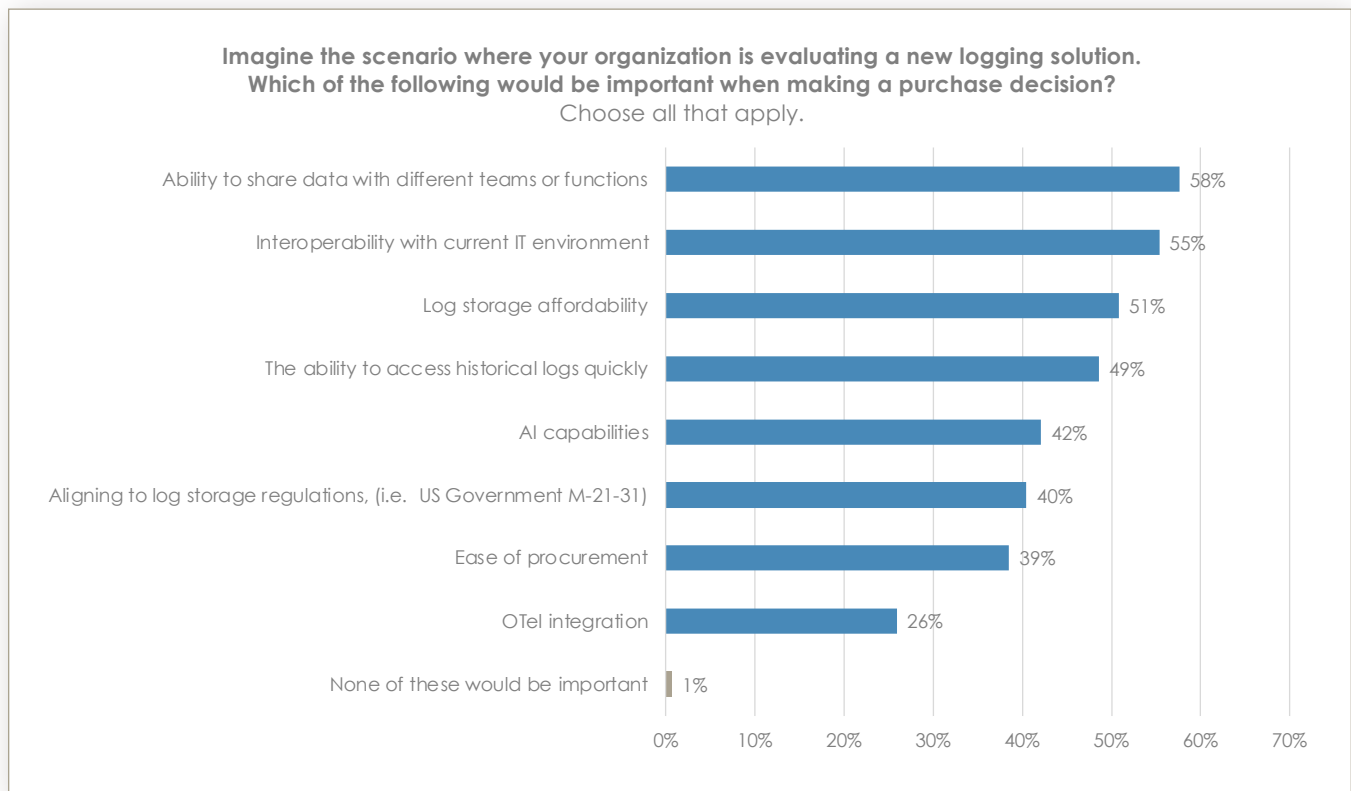


Detailed Findings: Logging solution investments involve interoperability and collaboration

Logging solution investments involve complex requirements and stakeholders

Logging data across the public sector is defined by complexity—both in what’s required and who’s involved. Capabilities must span multiple domains, from security and compliance to analytics, transparency, and mission delivery while satisfying the expectations of IT leaders, auditors, and policymakers alike. This broad set of needs and voices can make it difficult to build a unified approach or to standardize solutions across departments and agencies.

To effectively capture the requirements of logging solution capabilities, and avoid bias related to existing capabilities or legacy solutions, we asked participants to consider a scenario where their team was hypothetically evaluating a new logging solution. We then presented a list of capabilities and asked about the importance of that choice. The results clearly showed the complexity and range of requirements for logging solutions, with no single requirement popping to the top, and more than half flagging multiple capabilities as being important to their decisions. These included the ability to share data with different teams or functions (58%), interoperability with existing IT environments (55%), and affordability of storage (51%).

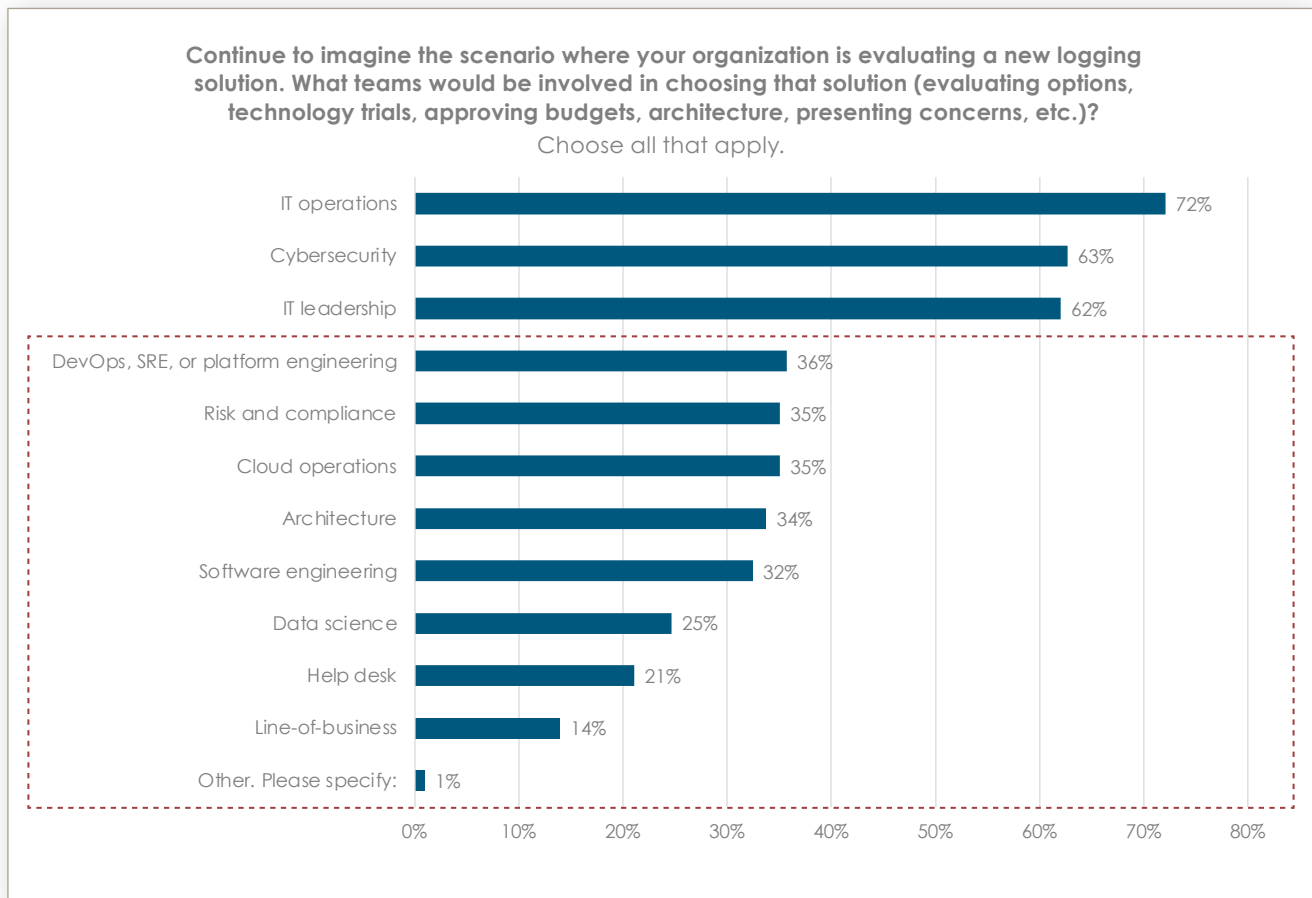


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Continuing this hypothetical situation, we asked about the teams that would be involved in the decision to invest in a new logging solution, including budget approval, technical evaluation, and opportunity to raise concerns. It is unsurprising that IT operations (72%), cybersecurity (63%), and IT leadership (62%) were by far the most common stakeholders.

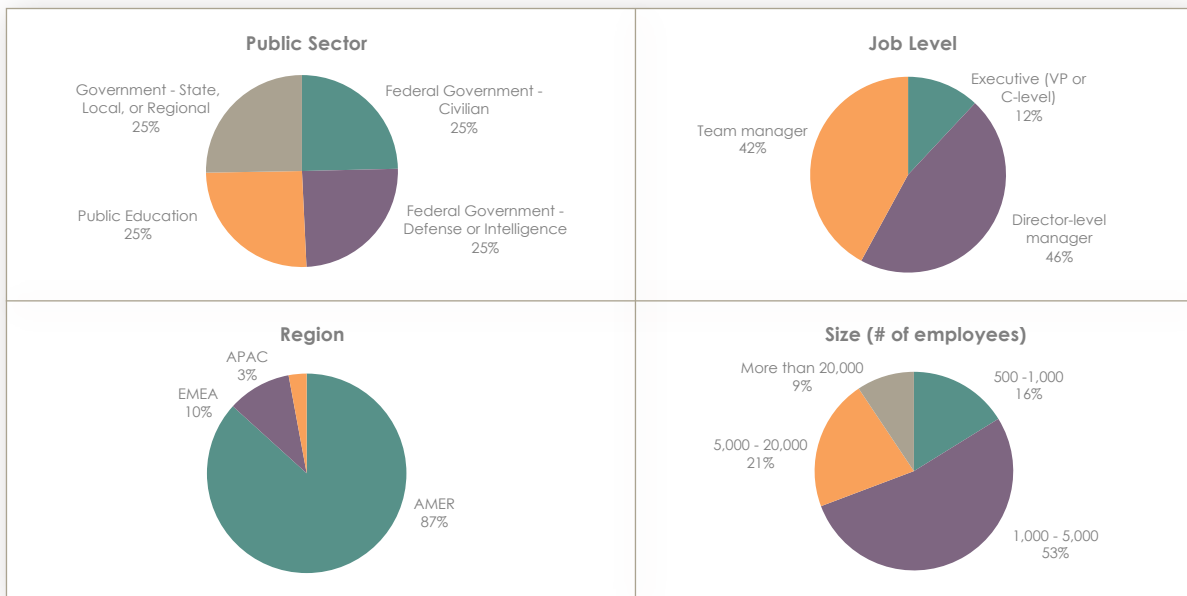
What is more interesting is the broad range of other groups that would be involved in the decision. Almost all (95%) indicated that there would be additional teams aside from these three core functions involved in decision making, including DevOps/SRE (36%), risk and compliance (35%), cloud operations (36%), architecture (34%), software engineering (32%) and more. Several participants, all from federal agencies in the United States, emphasized that there would be input from “other” groups including congress, budget committees, or IT oversight boards.





Survey Methodology and Participant Demographics

An online survey was sent to an independent database of enterprise technology managers and executives working at public sector organizations. A total of 309 qualified IT decision makers completed the survey, representing an even mix of Federal Government - Civilian, Federal Government - Defense or Intelligence, State or Local government, and Public Education. All participants had decision making responsibility (technical selection and/or budgetary approval) for observability tools in a managerial role responsible for DevOps, SRE, IT Operations, and/or Engineering at an organization with more than 500 employees. Participants included a mix of job levels and organization sizes. Due to rounding, certain graph options may not add up to exactly 100%. This survey was conducted as part of a [larger study](#) that included participants from a broad range of industries.



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