

Proactively Protecting Agency Performance: Why Observability Matters

MARKET TRENDS REPORT

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SOLARWINDS Public Sector

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Introduction

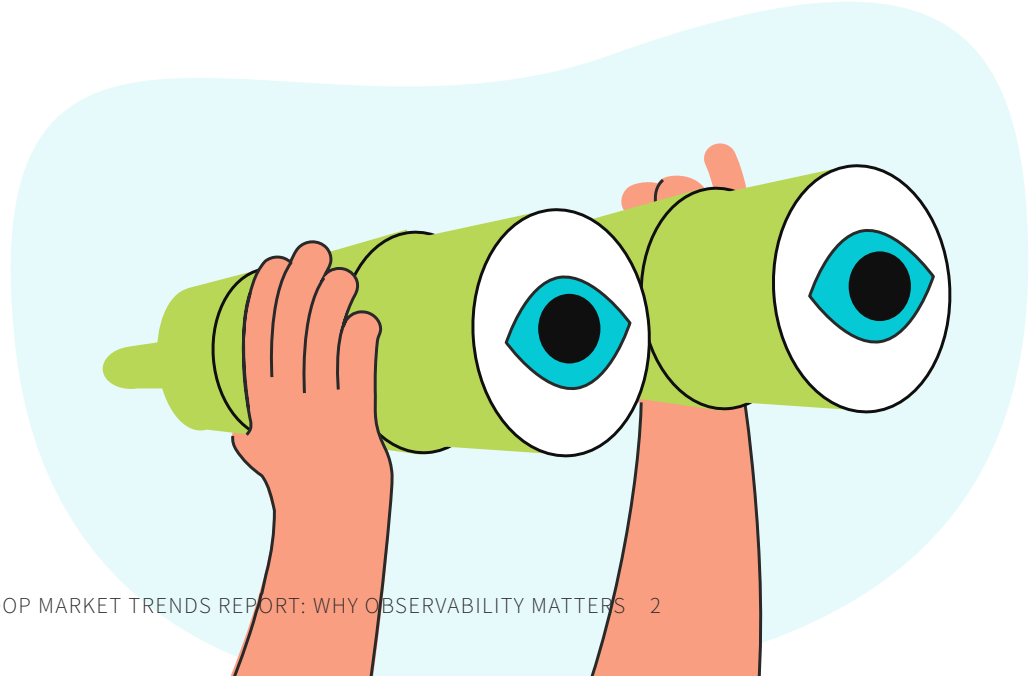
To support improved mission outcomes in an increasingly complex IT environment, federal agencies need greater insights into the operation of their technology systems and applications.

Most agencies have robust IT monitoring in place. But at a time when agencies have come to rely more heavily on technology, both in support of constituent engagements and more generally as the means to achieving mission outcomes, more than monitoring alone is needed.

Today's government relies more heavily on IT capabilities than ever, with technology at the heart of virtually every mission set. In this environment, ensuring system performance can mean the difference between life and death — or millions of dollars, depending on the agency and the mission.

In this environment, the federal government needs to move beyond monitoring and embrace "observability." Informed by multiple data sources across the IT ecosystem — and augmented by artificial intelligence (AI) and machine learning (ML) — an observability platform helps bring down mean time to resolution. It also makes the IT team proactive rather than reactive, enabling it to identify and remediate issues before they can impact the mission.

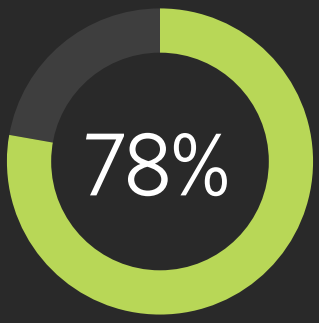
To learn how agencies can move toward true observability, GovLoop teamed on this report with SolarWinds, whose IT management software gives public sector organizations greater visibility into their increasingly complex operations.



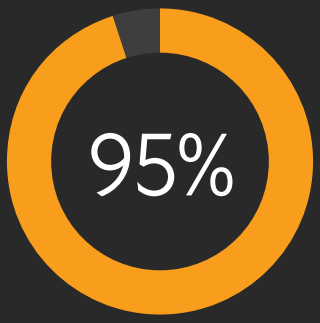
By The Numbers

As agencies shift their IT infrastructures to the cloud, many seek to elevate the end-user experience. They're simultaneously investing in tools to help generate insights into the behavior of systems and applications to reap the full benefit of their cloud deployments.

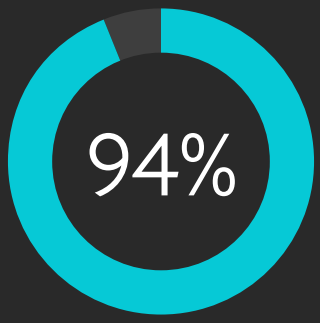
OBSERVABILITY DRIVES BETTER OUTCOMES



WHAT
78% of organizations are running cloud-based applications



WHY
95% are seeking to improve user experience



HOW
94% are investing in improving observability

"[T]he prevention, detection, assessment, and remediation of cyber incidents is a top priority and essential to national and economic security."

Executive Order on Improving the Nation's Cybersecurity



Organizations across the board are investing heavily in the cloud. But without insight into the operation of their modernized systems and processes, many fail to see the total return on those investments:

- Gartner expects **global cloud spending** to reach nearly **$600 billion** in 2023.
- Flexera says self-estimated **waste during cloud spending has increased** from 30% in 2020 to 32% in 2021.
- According to McKinsey, approximately **$100 billion of wasted migration spending** is expected over the next three years.

Look Beyond Performance Monitoring

Challenge: Outdated Architectures

While many agencies have recognized the value of deeper and more effective observability, many hurdles may need to be overcome.

INCREASING IT COMPLEXITY

With conventional approaches, the sprawling nature of modern IT systems can make it hard for technology teams to gain the level of visibility needed to ensure reliable and secure operations. In the past, IT was contained mainly within the data center's four walls. That's no longer the case, with the adoption of public, private and multi-cloud environments adding new levels of complexity to IT management.

"When using multiple cloud providers, they don't all speak the same language. They will expose different elements differently," said Jeff Stewart, Field Chief Technology Officer at SolarWinds. "Achieving true visibility across this complex, heterogenous landscape is hard."

THE VOLUME OF DECENTRALIZED DATA

With the growing dependence on technology comes a vast flood of operational data. It's hard for humans to sift through that data in search of warning signs — and more challenging still, given the decentralized nature of that data.

"When you had a monolithic application, everything was in one package. Now it's pieces and parts," Stewart said. "There are databases over here, application servers up in the cloud. It makes the problem of visibility that much more complex."

LACK OF VISIBILITY INTO MANAGED SERVICES

Software as a Service, or SaaS, has been a boon to IT shops, easing the burden of day-to-day systems management. But SaaS makes observability challenging.

"As an organization, you may be dependent upon others. You are not entirely in control of your destiny when delivering a service or an application," Stewart said. "More interdependencies complicate the effort to get to the root cause of a problem."

Solution: A Modern Observability Platform

In today's increasingly complex IT environment, improved operational insights can help agencies optimize performance, ensure availability and reduce remediation time.

A robust solution will deliver observability at the infrastructure, network and application levels, providing deep, holistic visibility into the IT environment without a deluge of telemetry data. By automating such tasks as visualization, analytics, management, troubleshooting and compliance tracking, a platform can free the IT team to focus on important issues and make better decisions.

Ideally, such a solution would deliver three key elements:

- **CORE FUNCTIONS:** An observability platform will deliver the core functionality that has long defied IT visibility: the metrics, application traces and logs that form the backbone of system reporting.
- **SECURITY:** Recognizing that security is a shared responsibility, full-stack observability will offer a security element, with robust reporting on the security posture and operational hygiene of infrastructure, applications and services.
- **SUPPORT FOR THIRD-PARTY INTEGRATIONS:** In today's heterogeneous IT environment, an observability platform should be able to integrate data from a wide range of third-party sources. "You want to be able to feed that data into your workflow to quickly get to the root causes and rectify those problems as quickly as possible," Stewart said.

Overall, a platform creates a more collaborative environment for addressing IT issues as they arise. "That shared context is important. Rather than talking about 'my application says this and yours says that,' now we are discussing how they interrelate and play off each other. What is the upstream and downstream impact if this piece goes down?" Stewart said.

"With that shared picture — when you know your environment and the various contextual behaviors — you're able to zero in and focus, to find and fix problems much faster and more effectively," he said.

Best Practices in Observability



Take an inventory

To track the performance of IT assets, you've got to know what you have and where it lives. "You need to account for all the various components, or else you risk missing a critical cog within the machine," Stewart said.

To best use an observability platform, start by taking an inventory of on-premises and off-premises systems, focusing primarily on those high-value and mission-critical applications whose reliable operation is of greatest concern.



Measure against a baseline

An observability platform can give deep, real-time insights into the health of systems and applications. It makes sense to take a baseline reading when shifting to an observability solution to drive continuous improvement.

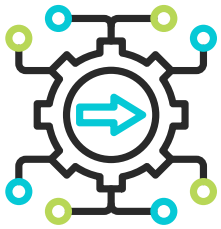
"When you have a baseline for what is normal, and your observability solution starts surfacing problems, you know right away which are the problems you truly need to focus on," Stewart said. In addition, baselining can help drive modernization. "When you move a workload to the cloud, for example, that baseline will tell you whether it is performing better or worse than expected," he said.



Manage via dashboarding

An observability platform should offer dashboard reporting, and it makes sense to take full advantage of that capability.

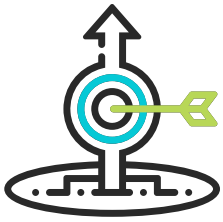
"There may not be a problem yet, but the signals say you are heading toward a degraded service or an outage," Stewart said. "The dashboard allows you to get to root causes more quickly, to transition from reactive to proactive."



Integrate response with the ITSM

An observability platform will deliver the best value when integrated into an organization's IT service management (ITSM) infrastructure.

"By tying observability tightly into your ITSM offering, you can do tracking and routing in an automated fashion," Stewart said. As tickets are opened, automated alerts drive a streamlined workflow and faster time to resolution.



Focus on outcomes

Observability is a means to an end, a way to ensure greater reliability of mission-critical systems. IT leaders should always be working with those business ends in mind.

"You don't want just to be the firefighters," Stewart said. "You want to be adding business value. An observability platform offers a practical way to demonstrate the service you're providing, to show that you are consistently meeting or exceeding your performance expectations."



Case Study: Observability in Action

For one federal agency with a health care mission, greater observability proved key to supporting a digital modernization initiative. The shift to electronic medical records promised to raise the level of constituent service, but the agency faced challenges.

"They struggled with visibility, ensuring that the performance and accessibility levels were acceptable," Stewart said. "They had to know that it was possible to pull a chart in seconds, and that doctors and patients weren't waiting 10 or 15 minutes for that to happen."

To get there, the agency IT team needed greater visibility into the performance and accessibility of those records systems. With that in mind, it implemented the SolarWinds observability solution, along with multiple third-party monitoring tools. SolarWinds generated critical data on system performance while integrating information from third-party tools to deliver full-spectrum visibility.

"With the SolarWinds platform, they were able to bring data together to get comprehensive visibility into the health and performance of that application," Stewart said.

The observability platform delivered greater visibility to support seamless engagements between care providers and constituents. "They were able to get much more comprehensive visibility into the usage of these electronic records," Stewart said.

And with improved visibility, the IT team was able to deliver continuous improvement, taking proactive steps to ensure the system could reliably deliver an elevated end-user experience. "They can rectify a problem before the end user even notices it, before it's even reported. It puts them in a much more proactive position," he said.

HOW SOLARWINDS HELPS

SolarWinds Hybrid Cloud Observability is a full-stack solution that helps federal agencies ensure systems' and applications' reliability. Its modern observability platform gives agencies unified oversight of on-premises and cloud resources. That end-to-end visibility across the complex IT landscape, coupled with advanced controls, empowers agencies to deliver citizen services consistently and effectively.

As a provider of simple, powerful and secure IT management software, SolarWinds supports public sector organizations worldwide, giving them the power to accelerate transformation. Its solutions support the complex compliance needs of government IT teams, enabling them to go beyond compliance to future-proof their digital transformation efforts.

Learn more: www.solarwinds.com/government

Conclusion

To achieve their mission in a complex IT environment, federal agencies must look beyond conventional monitoring. They must pivot toward full-stack observability to gain real-time insights into critical applications and systems.

A modernized observability platform can take them to the next level, tapping the power of AI and ML to give technology teams proactive control on premises, in the cloud and in hybrid and multi-cloud architectures. With end-to-end visibility and advanced controls, a modern observability solution helps ensure reliable systems operations, empowering agencies to deliver constituent services consistently and effectively.

As agencies look to minimize downtime, they can leverage hybrid cloud observability to create automated workflows, freeing IT time and talent while simultaneously accelerating mean time to solution. This supports the agency's modernization efforts, allowing technology experts to focus on higher-order tasks while ensuring that system enhancements are both fully operational and future-ready.

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ABOUT SOLARWINDS

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to customers worldwide from Fortune 500 enterprises to governments including nearly every U.S. civilian agency, DoD branch, and intelligence agency, as well as a large number of state and local government, education customers. In all market areas, the SolarWinds approach is consistent — focusing exclusively on IT Pros and striving to eliminate the complexity that they have been forced to accept from traditional enterprise software vendors. SolarWinds delivers on this commitment with unexpected simplicity through products that are easy to find, buy, use and maintain while providing the power to address any IT management problem on any scale.

Learn more at solarwinds.com/government.

ABOUT GOVLOOP

GovLoop's mission is to "connect government to improve government." We aim to inspire public-sector professionals by serving as the knowledge network for government. GovLoop connects more than 300,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to connect and improve government.

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