ScienceLogic

Simplify Your Agency's Digital Transformation

Leverage the Power of AIOps

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Executive Summary

Government agencies face unique challenges in moving forward with digital transformation. Their IT infrastructures are typically huge and complex with enormous numbers of devices, applications, services, and tools. And they struggle with making sense out of massive amounts of disparate data to effectively manage their organizations and deliver their mission objectives.

Introduction

Many agencies are attempting to become more agile while having to work with a complex array of legacy and modern technologies running in traditional datacenters, and increasingly in private cloud, public cloud, hybrid cloud, and SaaS environments.

Each new initiative adds IT complexity and requires integration, administration, monitoring, and maintenance by experienced engineers. To become truly agile in the increasingly complex hybrid IT environment, agencies should evaluate the potential of AIOps to make their operational data actionable and shift staff from manual to automated operations.

Digital transformation requires:

Real-time end-to-end visibility into the operational health, availability, and risk of their infrastructure and mission critical services.

Real-time operational data lake *with context* that makes data actionable.

Sharing that data between DevOps, SecOps, and ITOps to empower them to confidently and rapidly deliver new services to their users and customers; while protecting the data, applications, and devices used.

Digital transformation requires an AIOps platform that provides the foundational end-to-end visibility into the operational health, availability, and risk of their mission critical services required to automate their IT operations.

What is AIOps?

Gartner defined AIOps as the application of advanced analytics in the form of machine learning (ML) and artificial intelligence (AI) so that your ITOps team can move at the speed required to deliver mission critical services.

AIOps builds real-time systems in the form of context-rich data lakes that traverse the full application stack to reduce noise in modern performance and fault management systems and drive automation with the goal of improving time to resolution.

The quality of operational data being collected is the key to successful automation with AIOps.

Successful AIOps Hinges on Three Important Aspects of Data Quality

If you can't trust the data in your data lake, you can't use it to achieve intelligent, automated operations.

Real-time data

Traditional data science operates on the order of weeks or months where data scientists gather and prepare the data, train their models, and evaluate the data. In IT, analyzing data from weeks ago doesn't help you. Cleaning, analyzing, and acting on the data must happen in real-time, so you know what's happening right now. To be effective, closed-loop decision making must happen in real-time without a person involved.

High fidelity data

Given that systems and services can break in unexpected ways, it's difficult to know ahead of time what data will lead to a necessary conclusion. If you are not pulling different metrics about a particular resource, then you may not have the data you need to solve a problem. It's critical to collect and fuse data together across ballooning sources and types of IT data to accurately reflect the real-time state of what's happening with your IT and business services at any given time.

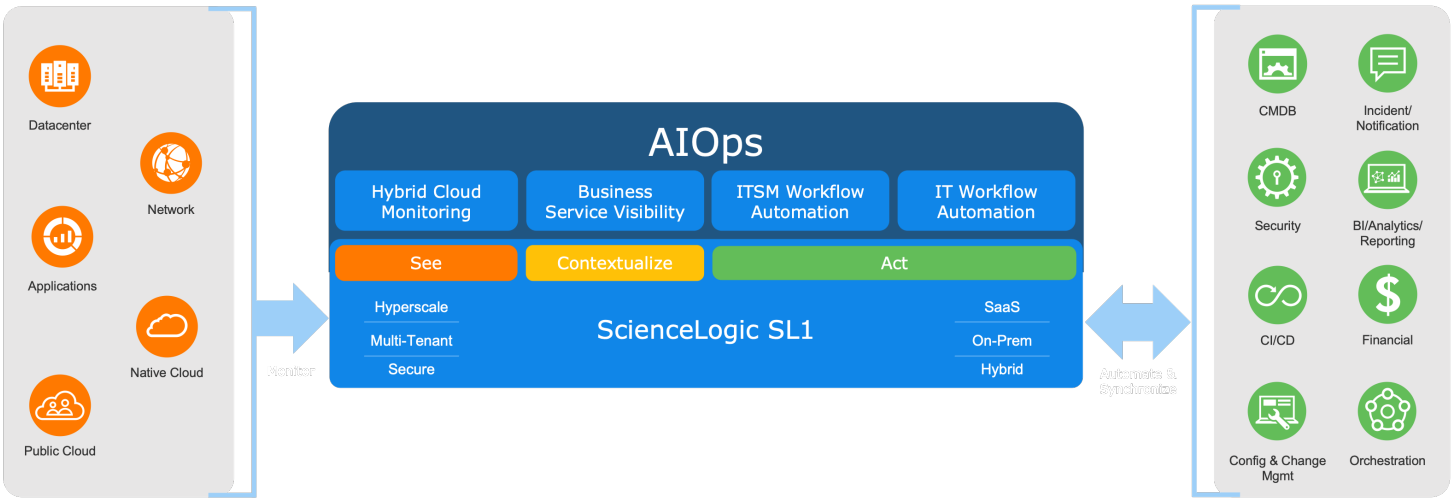
Data must have context

Modern IT systems and services are complex, relying on a wide variety of technologies. This is often aggravated by the siloed nature of government IT. It has become impractical to manage these systems at the device level. Modern AIOps methodology requires a service-oriented view. This context drastically enhances the ability to learn behavior, correlate, and accelerate root cause analysis.

ScienceLogic Can Simplify Your Journey to AIOps

ScienceLogic is a leader in IT Operations Management, providing Government agencies and other enterprises with actionable insights to predict and solve problems faster in a digital, ephemeral world.

The ScienceLogic SL1 Platform sees everything across multi-cloud and distributed architectures, contextualizes data through relationship mapping, and acts on this insight through integration and automation.



5 Steps to AIOps with SL1

Government organizations who want to achieve maximal service efficiency, reliability, and up time are investing in AIOps. But to make their digital transformation a reality, there are five critical steps that must be taken.

Discover and monitor your entire IT estate

The ScienceLogic SL1 Platform empowers you to take a holistic approach to IT modernization. With SL1, you know what makes up your hybrid IT infrastructure,--regardless whether it's running on-premises or across multiple clouds. Continuous, automated discovery is necessary to identify the current state of your global enterprise and to ensure you are keeping up with the frenzied pace of change.

Prepare your data

SL1 enables you to move beyond traditional siloed monitoring tools and data to a unified data lake which enables comprehensive, automated analysis. While raw archived data is useful for offline analysis—real-time, closed-loop analysis requires data that is merged into a clean, normalized, de-duplicated, and consistently formatted data lake.

Learn your data

Accurate and up-to-date information is the foundation of AIOps. Adding meaning to the data is the next critical piece of the puzzle. By reducing the data sets and learning the relationships and behavior between the elements of your IT environment you can identify behavioral patterns. SL1 machine learning detects anomalies that are inconsistent with normal behavior. These insights enable you to reduce the noise, identify service-impacting events, and give a clear picture of what led to the problem.

Analyze your data
Armed with these insights you can quickly assess the overall health, availability, and risk of a business service, triage the most critical problems, and take corrective actions to optimize resources, resolve problems, and avoid service-impacting outages. SL1 presents contextually relevant insights and recommended actions in real-time to operators for further triage or repair.

Act
Now you can leverage all you have learned to automate operational workflows and processes to triage and remediate incidents, shift or provision/deprovision resources, share data between ecosystem management tools like your CMDB, Service Desk, or Configuration and Change Management tools, and more. SL1 can present contextually-relevant recommended actions to the operator for further triage or remediation.

Use Cases for AIOps

There are many use cases for leveraging the power of AIOps enabled by the SL1 Platform. These include:

Identifying business service impacts of IT problems
Things break all the time. IT organizations want to cut through the noise to understand which failures are most important so they can work on the right issues first. SL1 enables organizations to quickly assess the impact and risk that an issue creates for their business services and prioritize their work based on business relevance.

Diagnose root cause & recommend actions
Organizations want to make better decisions with less human intervention. SL1 applies AI/ML to algorithmically correlate the root cause of an incident and forecast risk of impending problems based on trends. It can use context to recommend actions for automating triage, resource optimization, and remediation workflows based on prior successful actions.

Automate incident enrichment & repair
Organizations want to ensure that tickets have the information needed and that remediation can take place immediately. The SL1 Platform can automatically capture troubleshooting data when an issue occurs and automate manual triage and remediation steps.

Automate & synchronize IT workflows
In addition to keeping the CMDB up-to-date, the SL1 Platform can orchestrate systems and processes across a wide range of other tools including Incident/Notification, SecOps, DevOps, Configuration and Change Management, Financial, BI/Analytics/Reporting, Orchestration, and more.

Comprehensive Government Security Compliance

Trusted by thousands of organizations across the globe, our technology was designed for the rigorous security requirements of the United States Department of Defense, proven for scale by the world's largest service providers, and optimized for the needs of large enterprises.

SL1 was the industry's first end-to-end monitoring platform to conform to the U.S. Government's security and operability standards and be listed on the DoD Information Network (DoDIN) Approved Products List (APL).

SL1 conforms to FIPS 140-2 and current methods for data encryption and communication between software appliances. In addition, ScienceLogic's security processes and controls support SOC-2.

Leverage the ScienceLogic SL1 Platform and quickly implement AIOps to reduce risks and costs while modernizing your IT environment.

About ScienceLogic

ScienceLogic enables companies to digitally transform themselves by removing the difficulty of managing complex, distributed IT services. Our IT infrastructure monitoring and AIOps platform (SL1) provides modern IT operations with actionable insights to predict and resolve problems faster in a digital, ephemeral world. The SL1 platform sees everything across cloud and distributed architectures, contextualizes data through relationship mapping, and acts on this insight through integration and automation. SL1 solves the challenges and complexities of today and provides the flexibility to face the IT monitoring and management needs of tomorrow. Trusted by thousands of organizations, ScienceLogic's technology was designed for the rigorous security requirements of United States Department of Defense, proven for scale by the world's largest service providers, and optimized for the needs of large enterprises.