

Customer Success Story

Industrial Scientific shrinks AWS bill by 13% and simplifies SRE.



The customer

Since 1985, Industrial Scientific has been a safety company focused on eliminating death on the job, first with cutting-edge gas detection technologies and now with asset management, remote monitoring, productivity tracking, and other software applications.

From the International Space Station to mines deep inside the earth, men and women around the world bet their lives on the technologies our teams have created, including the first three-gas detector, six-gas detector, and wireless gas detector.

At any given time, hundreds of thousands of people are betting their lives on the work Industrial Scientific does as a company. Industrial Scientific has 16+ years of cloud experience and relies on AWS and Lightlytics (along with other technologies) for their critical IT infrastructure today.

Industrial Scientific has been growing their AWS footprint and are looking to expand to a multi-region topology to support their global operations.

"Our AWS infrastructure helps us keep our wearable gas detection instruments up and running across the world. Every day, human lives depend on the reliability and monitoring capabilities we provide."



Rob Surrena, Senior Site Reliability Engineer

The challenge

The Industrial Scientific team is very adept at using cloud technology and has previously moved their on-premises datacenter to AWS for improved reliability and 24×7 continuous monitoring. Leveraging cloud opened up many opportunities for their business, yet also introduced additional complexity for daily operations.

The Site Reliability Engineering (SRE) team quickly noticed that they needed better technology to respond to interesting audit patterns, emerging trends and reachability troubleshooting in their environment. While useful, the native tools didn't provide granular

and actionable insights for their AWS topology on availability and cost. The team had to resort to manual scripting and manual reviews of the AWS console, but they were aware that these methods would not scale, especially with how lean the team is and how their infrastructure is growing.

Cloud cost optimization is top of mind for all organizations and Industrial Scientific is no exception. Cost optimization activities would just happen in the spur of the moment, and the team would spend hours trying to understand AWS Cost Explorer and other native tools.

The Solution:

When first introduced with Lightlytics, the SRE team pushed back on committing to a proof of concept because of the day-to-day operational workload. Yet, as soon as they started the trial, the team discovered that Lightlytics was invaluable for taking care of different aspects of their AWS, especially for small teams. Lightlytics simplified a lot of the daily tasks and helped the team get more done in a repeatable way.

When it comes to cost optimization, Lightlytics reveals all direct and indirect cost for every resource, so the SRE team can resolve cost issues in seconds or minutes. During the trial, the team also discovered many cost optimization opportunities in their AWS environment and realized that they could further reduce their AWS bill. The team started to implement Lightlytics's cost optimization suggestions (such as migrating from gp2 to gp3 instance types and removing unused RDS resources) and reduced their monthly AWS bill by 13% during the first two months with Lightlytics.

Before working with Lightlytics, the team was limited to native AWS tools to handle cross-account reachability and cost issues. These processes were all manual and the data wasn't presented clearly, nothing comparable to Lightlytics.

How Lightlytics presents the data is proven to be key to Industrial Scientific's success: being able to click on a resource to retrieve all related configuration and components is very helpful.

The team appreciated the non-intrusiveness of Lightlytics and how the platform brought visibility with context to all AWS accounts, tracking cost, availability and security in the same view instead of dedicated point solutions.

As a result of working with Lightlytics, Industrial Scientific:

- Simplified daily operations thanks to the contextual visibility into AWS.
- Superior cost troubleshooting and optimization capabilities.
- Superior incident management capabilities as force multiplier for security, availability, and cost.

Quantifiable benefits for the Industrial Scientific team include:

- Reduced the monthly AWS bill by 13%, with potential for further reduction.
- Reduced the time it takes to troubleshoot cost and reachability from hours to minutes.

"Lightlytics was pivotal in our ability to monitor and manage AWS costs. The platform made it very easy to understand how our cost is structured with direct and indirect costs, and how we can optimize it. For example, the direct cost of an ECS Cluster might be a dollar, but the total indirect cost of that cluster might be a hundred dollars because of the EC2 Instances in it."



Rob Surrena, Senior Site Reliability Engineer

**INDUSTRIAL
SCIENTIFIC**

Working with Lightlytics

The Industrial Scientific and Lightlytics team have formed a close partnership from the start. Both teams brought extraordinary expertise and collaborated on making this a successful project.

"I see a lot of potential in the visibility capabilities that Lightlytics brings. The team has been very responsive and knowledgeable so far. How Lightlytics represents information with the right context is extremely helpful. What's also great is the platform is not intrusive, it gives us visibility into all our AWS accounts for cost, security and reachability aspects. The product can pay for itself with the cost improvements we've implemented within two months of implementation."



Rob Surrena, Senior Site Reliability Engineer

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Next, Industrial Scientific is looking to increase its Lightlytics usage by adopting:

- Simulation capabilities for Terraform in their CI/CD processes,
- Network log and VPC flow forwarding to Lightlytics,
- Custom architectural standards to enforce internal best practices.

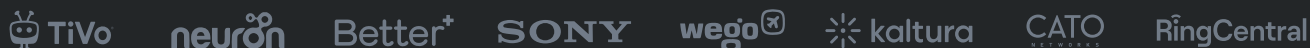
Lightlytics provides a collaborative change intelligence solution for all teams who work on AWS configuration changes. The Lightlytics platform helps cloud operations teams identify and fix root causes of incidents in minutes, investigate security incidents more efficiently, and troubleshoot cost for their environments.

The platform's CloudTwin technology continuously tracks incremental changes to create a precise, up-to-date model of your environment. It utilizes dynamic algorithms to detect dependencies across resources, providing context for various aspects of operations such as availability, security, compliance, and cost.

Leading cloud-native teams use Lightlytics to:

- Detect and troubleshoot AWS changes effectively with the complete real-time context of their AWS configuration, environments, machine and user activity.
- Get a complete understanding of their AWS posture across cloud accounts, regions and Kubernetes clusters.
- Share and enforce best practices through architectural standards.

Including



Lightlytics customers report significant benefits including:

Hibob security and operations teams can troubleshoot and act on tasks 4x to 10x faster.



Wego achieves 40% lower cost compared to alternatives



Kaltura gains unmatched visibility that previously required multiple tools and manual correlation



Lightlytics offers a free AWS Well-Architected Assessment, providing an in-depth review of your AWS environment against the pillars of the AWS Well-Architected Framework. The platform also features a range of resources such as whitepapers, webinars, and blog posts, covering topics like IAM issues, EKS cluster autoscaler problems, Kubernetes network policies, and cost reduction strategies.

Schedule your free assessment →

Start a free trial or personalized demo today.