



AN INFLUXDATA CASE STUDY

# Mist Unlocks Multi-Cloud Observability

This Platform for Managing Infrastructure is  
Powered by InfluxDB.



## Company in brief

Mist is an open source multi-cloud management platform. It supports popular infrastructure technologies including public clouds, private clouds, hypervisors, containers, and bare-metal servers. Mist provides a unified interface for performing common management tasks like provisioning, orchestration, monitoring, automation, and cost analysis.

## Case overview

Nearly all modern businesses have a multi-cloud strategy but infrastructure management teams struggle to juggle diverse technology solutions, policies, and services to get access to a point-in-time view of their resources. The result is either waste through overprovisioning or huge overheads for nitpicking manual management and repetitive tasks. Mist is an app built on InfluxDB that offers a single platform to observe and manage resources across clouds.

## The business challenge

Mist was borne of frustration. Its co-founders were running an IT consulting firm and facing daily questions from their customers about the resources they had, where they were, how to control access, and how to automate common processes. They built a platform that could harmonize the disparate technologies cloud providers used so IT teams could easily understand and manage their own machines, policies, and permissions.

It's very difficult for infrastructure managers to see, understand, and manage their resources across different cloud environments. Without that visibility and access, they can't optimize their systems — spinning up new VMs automatically with standardized software, rooting out and troubleshooting problems, and provisioning resources quickly when they need them.

### Technologies used:

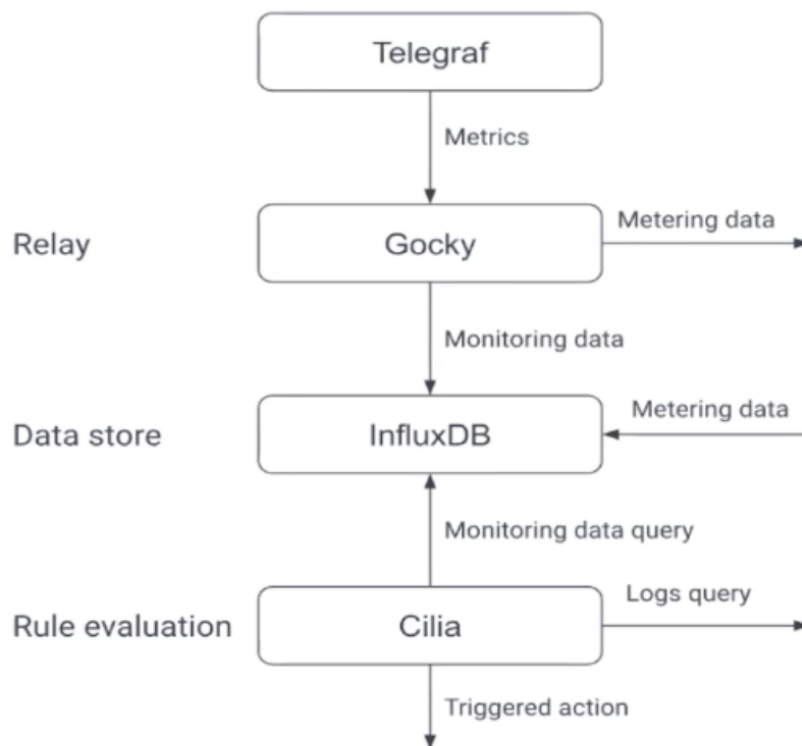
Cilia, Elasticsearch, Gocky, InfluxDB, Mist.io, Python, RabbitMQ, Telegraf

## The technical challenge

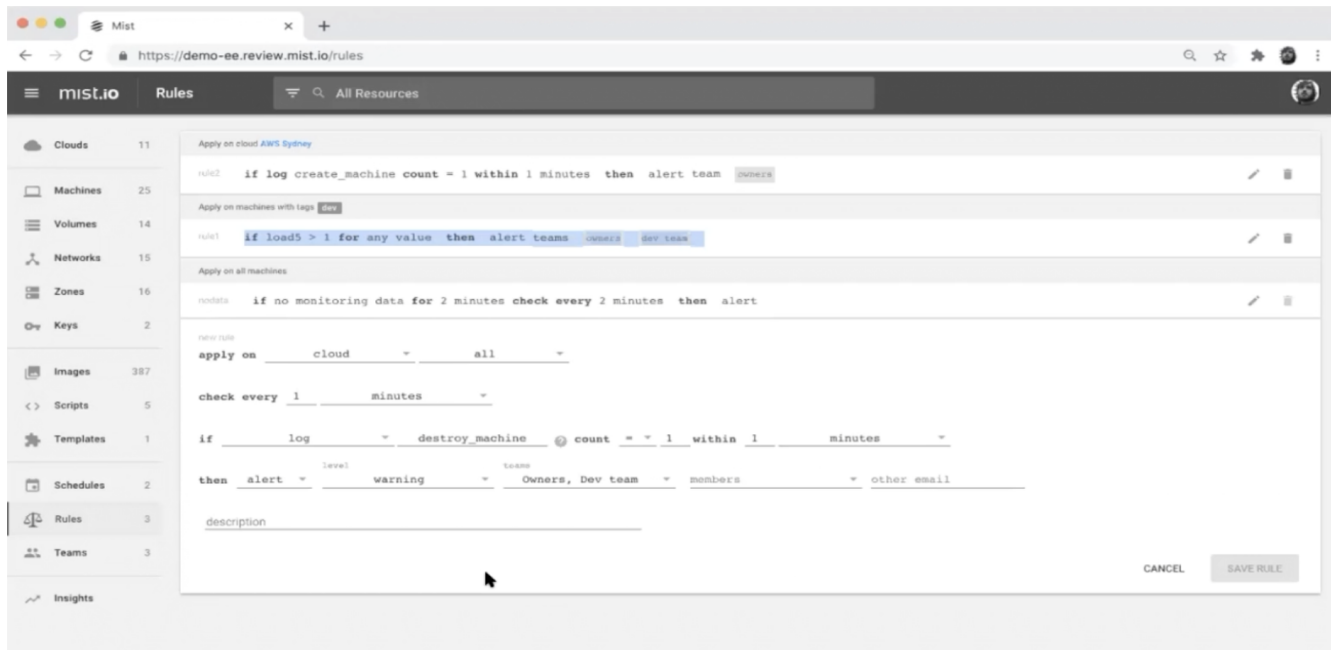
In order to build Mist, its creators needed to tackle challenges at both ends of the data management lifecycle. Data coming in needed to be both streaming and harmonized so the platform could give its users the insights they needed about their systems in real time.

They chose InfluxData's open source collector Telegraf as its agent and forked InfluxDB Relay into a new component called Gocky. InfluxDB is their data store and powers its insight engine.

However, all that visibility isn't useful unless you can do something with it, so they also needed to build a strong intermediary that could act on the user's behalf. That is an app called Cilia that evaluates rules and triggers actions inside the cloud environments.



## The solution



Mist connects to infrastructure providers with a native API to manage virtual machines and view their performance including CPU usage and load average. It can spin up, provision, troubleshoot, and destroy individual VMs, as well as monitor and compare performance across different clouds. It can show how many VMs are on each cloud, how much they cost, and their performance. Users can set rules specific to machines or clouds, and dig through logs. They can execute scripts across machines to install applications and make backups, or run apps in clusters across any resources in that cloud.

Mist allows for fine-grained permissions, so managers can easily set access based on resource, at the cloud level, globally, and via tags. For example, they can set different policies for administrators, dev, and QA teams. They can also configure Mist to force their teams to set budgets and manage the destruction of resources to avoid cost overruns. If something goes wrong, the logs are easily accessible in one Mist dashboard.

“

*We had customers around the world, and their infrastructure was all over the place: AWS, on-prem, co-located...In order to make good decisions, you need data, and that's why monitoring metrics are essential when managing infrastructure.”*

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Dimitris Moraitis, Co-Founder and CTO, Mist

## Results

Infrastructure management is very simple in Mist, driven by the power of InfluxDB. It is easy to find resources, start monitoring, set up dashboards for the most important metrics to your organization, provision new VMs, manage security, and set up rules that run automated workflows. In its first year using the platform, Mist customer SevOne DevOps reports saving at least 1 FTE and hundreds of hours in repetitive tasks during each release cycle.

## What's next

The Mist team is working on custom dashboards for specific use cases and is excited about integrating the new capabilities of [InfluxDB's IOx release](#).

## About InfluxData

InfluxData is the creator of InfluxDB, the leading time series platform. We empower developers and organizations, such as Cisco, IBM, Lego, Siemens, and Tesla, to build transformative IoT, analytics and monitoring applications. Our technology is purpose-built to handle the massive volumes of time-stamped data produced by sensors, applications and computer infrastructure. Easy to start and scale, InfluxDB gives developers time to focus on the features and functionalities that give their apps a competitive edge. InfluxData is headquartered in San Francisco, with a workforce distributed throughout the U.S. and across Europe. For more information, visit [influxdata.com](https://influxdata.com) and follow us [@InfluxDB](https://twitter.com/InfluxDB).



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