



Cloud Cost Optimisation

A Primer

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01 Challenge

Let's talk about...

The Cloud

Cloud Market

	revenue (USD)	market share (%)	YoY growth (%)
Amazon Web Services	26,20	40.8	28.7
Microsoft Azure	12,69	19.7	59.2
Alibaba Cloud	6,12	9.5	52.8
Google Cloud Platform	3,93	6.1	202.8
Others	15,34	24	25.6

Cloud Market

\$64B

Annual spend on public cloud

Cloud Market

\$64B

Annual spend on public cloud

41%

Annual growth of public cloud

Cloud Waste

\$64B

Annual spend on public cloud

\$17.6B

Annual public cloud waste

Cloud Waste

\$64B

Annual spend on public cloud

\$17.6B

Annual public cloud waste

20-30%

Spend attributed to cloud waste

Cloud Waste

“Between idle and over-provisioned resources alone, that’s \$17.6B in cloud spend that will be completely wasted this year. And the potential is even higher [...]

That’s a minimum of about **\$5M wasted *per day***, every day this year, that could be reallocated toward other areas of the business.”

Source: devops.com/the-cloud-is-booming-but-so-is-cloud-waste

\$11B

Annual public cloud waste

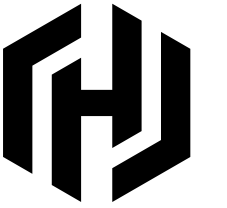
\$6.6B

Wasted from over-sized resources

Cloud Waste Side - Effects



Cloud Waste Side - Effects



Reduced Productivity

Wasted spend is correlated with **poor standardisation**, or worse yet: anti-patterns.

If there's no easy way for developers to re-use patterns, then everybody **re-invents the wheel**, over and over again.

Cloud Waste Side - Effects



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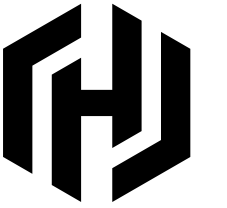


Risk

Lack of governance and oversight across the enterprise results in an **increased risk surface**.

Validated models are easier to reason about, which is part of a heightened security posture.

Cloud Waste Side - Effects



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Misallocation

Literally: money that could - and should - be spent on other things.

Brass tacks: wasted cloud spend is basically a vampire that is **making your organisation weaker**.

02 Opportunity

Let's talk about...

Opportunity

Shift-left on Cloud Spend

Engineers as the new cloud financial controllers

Shift-left on Cloud Spend

Engineers as the new cloud financial controllers

- Availability of billing minutiae

Shift-left on Cloud Spend

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- Billing data is just that: **data**

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Shift-left on Cloud Spend

Engineers as the new cloud financial controllers

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Shift-left on Cloud Spend

Engineers as the new cloud financial controllers

- Availability of billing minutiae
- Billing data is just that: **data**
- Programmatic access to that **data**
- Wait a minute... an API full of **metrics**?
- That can be **correlated** with deployments?
- This sounds like a job for **dashboards**!

Shift-left on Cloud Spend

...y tho?

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- Get **involved** in product discussions

Shift-left on Cloud Spend

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- Bring **insight** to business decisions

Shift-left on Cloud Spend

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Shift-left on Cloud Spend

...y tho?

- Get **involved** in product discussions
- Bring **insight** to business decisions
- Increase your capacity to generate **value**
- Level-up your **career**

The image features a dark blue background with decorative geometric patterns in the corners. The top-left corner contains a series of white, nested chevron-like lines. The bottom-right corner features a white dotted pattern. The word "Demo" is centered in a large, white, sans-serif font.

Demo

ksatirli

Workspaces

Registry

Usage

Settings

HashiCorp Cloud Platform

ksatirli / Workspaces / minimise-cloud-waste / Overview

minimise-cloud-waste

Minimising Cloud Waste with Terraform and Datadog.

Overview

Runs

States

Variables

Settings

Resources

1

Terraform version

1.0.8

Updated

2 minutes ago

Unlocked

Actions

Latest Run

View all runs

Triggered via CLI

ksatirli triggered a run 3 minutes ago via CLI

Policy checks

Estimated cost change

Plan & apply duration

Resources changed

Add

None

Less than a minute

+1 ~0 -0

Applied

See details

Resources

1

Outputs

2

Current as of the most recent state version.

Filter resources

NAME	PROVIDER	TYPE	MODULE	UPDATED
aws_ec2_cost_optimise...	datadog/datadog	datadog_dash...	root	Oct 6 2021

1 - 1 of 1 resources.

Metrics (last 6 runs)

Average plan duration

< 1 min

Average apply duration

< 1 min

Total failed runs

5

Policy check failures

0

Tags (3)

Add a tag

costcontrol

datadog

dashboards

Run triggers

No source workspaces have been selected. Adding run triggers will allow runs to queue automatically in this workspace.

ksatirli

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NAME	TYPE	VALUE
url_cost_control_dashboard	string	"https://app.datadoghq.com/dashboard/e23-u9z-6b7/aws-ec2-cost-optimiser"
url_my_dashboards	string	"https://app.datadoghq.com/dashboard/lists/preset/4"

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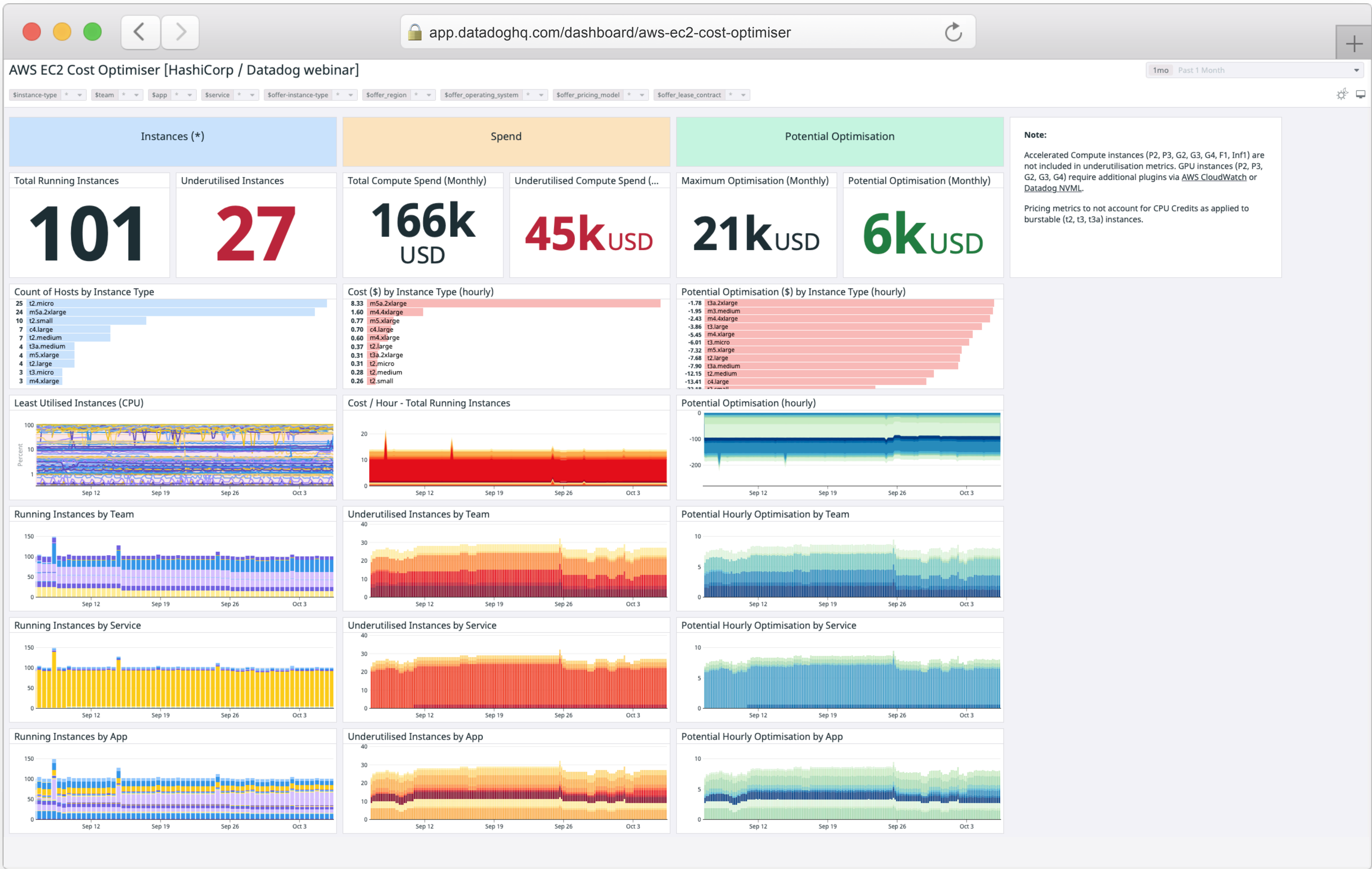
costcontrol

datadog

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Thank You!

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