FinOps on nOps - Cost Optimization Without Spending A Dime

nOps™ aws wgtwo

Meet the Speakers

Satish Bora
GM

nOps

Richard Tribang
Solutions Architect EMEA

aws

Matt Long
Engineering Manager
Edge, Security, and Cloud Infrastructure

wgtwo

Topics & Agenda

1. FinOps and Cost Optimization

Richard Trabing, AWS - ***15 min***

2. FinOps on nOps

Satish Bora, nOps - ***15 min***

3. Customer Speak – nOps Experience

Matt Long, WGTWO - ***15 min***

Cost Optimization & FinOps

Some AWS Best-Practices…

Richard Trabing - AWS Well-Architected Solutions Architect

Agenda

- FinOps Definitions & Motivations
- FinOps @ AWS
  - Well-Architected
  - Cloud Financial Management
  - Cloud Operations Model
- AWS Framework Details
- Synthesis/Summary

FinOps Definition & Motivators

What is “FinOps”?

Finops.org: “FinOps is an evolving cloud financial management **discipline** and cultural **practice** that enables organizations to get **maximum business value** by helping engineering, finance, technology and business teams to **collaborate** on data-driven **spending decisions**.”

Why is FinOps important?

- Traditional IT – CAPEX
- High-tech “as-a-service” – OPEX

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- Opex Challenges…
  - Finance

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- Opex Challenges…
  - Finance, IT

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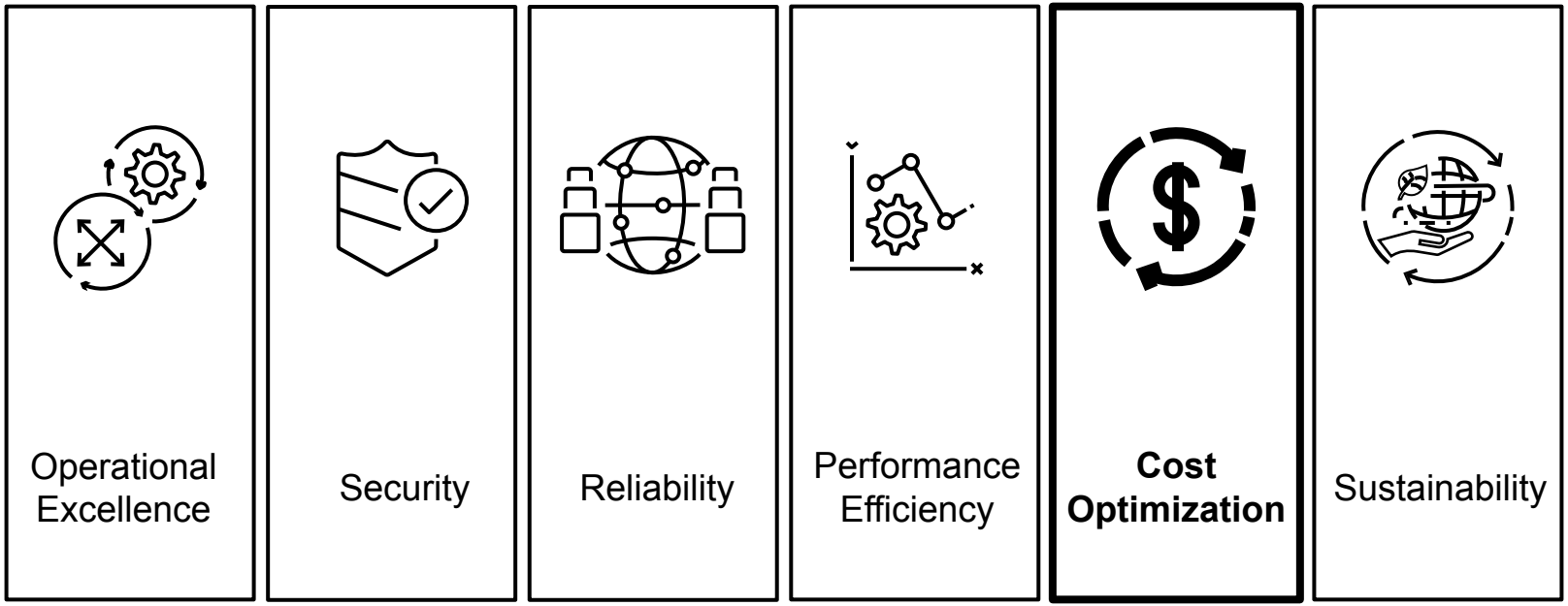
- Incumbents are learning…
- Opex Challenges…
  - Finance, IT, Intrusion…

FinOps @ AWS

AWS Well-Architected Framework



AWS Cloud Financial Management (CFM)

Manage, optimize, and plan AWS cost and usage

See

Measurement and accountability

Save

Cost optimization

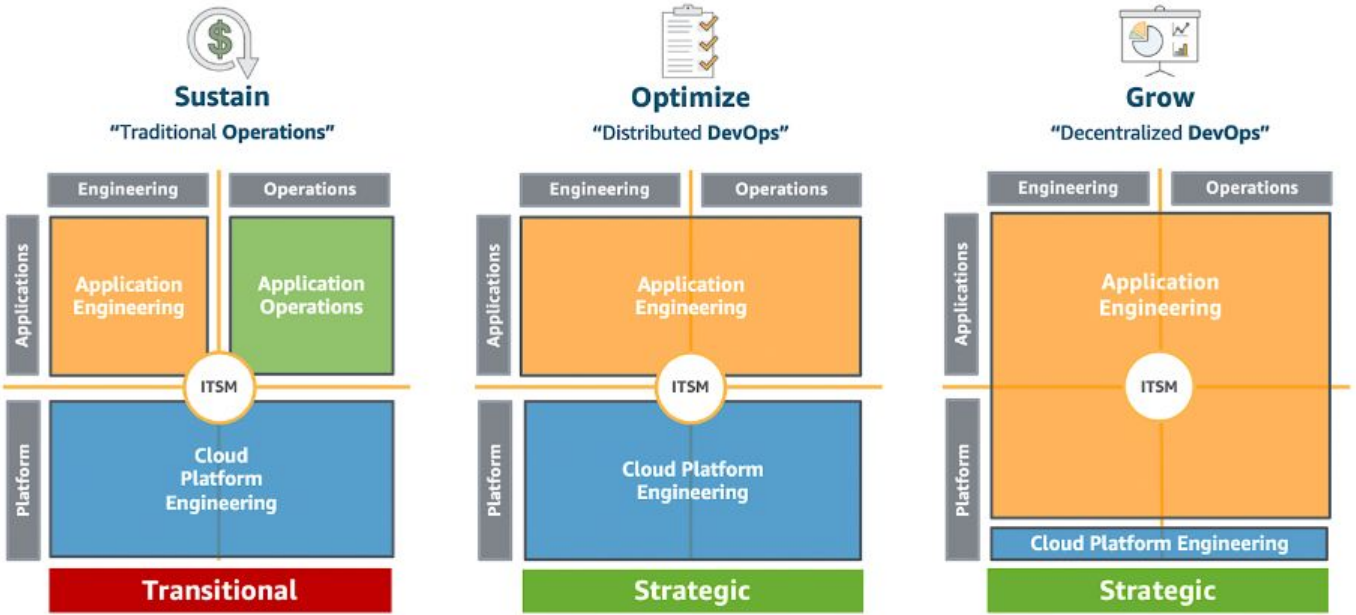
Plan

Planning and forecasting

Run

Cloud financial operations

Cloud Operating Model



FinOps @ AWS – The Details…

WA - Cost Optimization Principles

- Implement Cloud Financial Management (CFM)
- Adopt a consumption model
- Measure overall efficiency
- Stop spending money on undifferentiated heavy-lifting
- Analyze and attribute expenditure

WA – Cost Optimization Best Practices

- Practice Cloud Financial Management (CFM)
- Expenditure and usage awareness
- Cost-effective resources
- Manage demand and supply resources
- Optimizing over time

WA – Cost Optimization Questions - How do you…

- implement cloud financial management?
- govern & monitor usage and cost?
- evaluate cost when you select and configure services?
- use pricing models to reduce cost?
- plan for data transfer charges?
- manage demand, and supply resources?
- evaluate new services?
- decommission resources?

AWS Cloud Financial Management

Manage, optimize, and plan AWS cost and usage

Measurement and accountability (See)

Implement account and tagging strategy

Report and monitor cost and usage

Allocate costs

Measure efficiency/value KPIs

Cost optimization (Save)

Architect and design

Eliminate cloud waste

Choose the best purchase option

Evolve with new cloud offerings

Planning and forecasting (Plan)

Dynamic budgeting and forecasting

Estimate workload costs

Quantify cloud business value

Integrate cloud with IT financial management

Cloud financial operations (Run)

Executive sponsorship for a CFM function

Align stakeholder understanding of cost

Implement cloud guardrails

Evolve process, automation, and tools

https://aws.amazon.com/aws-cost-management/cfm-community/

nOps saves NiuPay 20% In AWS Costs in the First 30 Days, Achieves AWS APN Partner Status

Challenge

NiuPay maintains a variety of cloud-native, mission-critical systems for Public Sector customers. To achieve the high levels of security and compliance required to deliver such workloads, automation and auditability are valued above subjective decision making (i.e., manual processes by exception).

Solution

nOps has allowed NiuPay to further automate its rapid-cycle DevSecOps pipeline by providing team members with the tools to easily validate and iterate against multiple industry security standards, best practices, and cost control measures.

Benefits

- 20% cost reduction within the first month
- 90%+ time reduction associated with the generation of stakeholder reports
- 0 unused AWS resources
- 0 performance issues

> “nOps has brought together thousands of critical metrics in what can only be described as meticulously crafted information architecture. You’re only ever a few clicks away from finding the information you need.”
>
> – Jason Kurdzinski, Chief Technology Officer, Niupay

Company:	NiuPay
Industry:	SaaS and BPaaS
Country:	Papua New Guinea
Employees:	11-50
Website:	www.niupay.com.pg

About NiuPay

NiuPay is a horizontal SaaS (Software-as-a-Service) and BPaaS (Business-Process-as-a-Service) solutions company with a mission to rapidly introduce affordable, cloud-native technologies into the South Pacific region.

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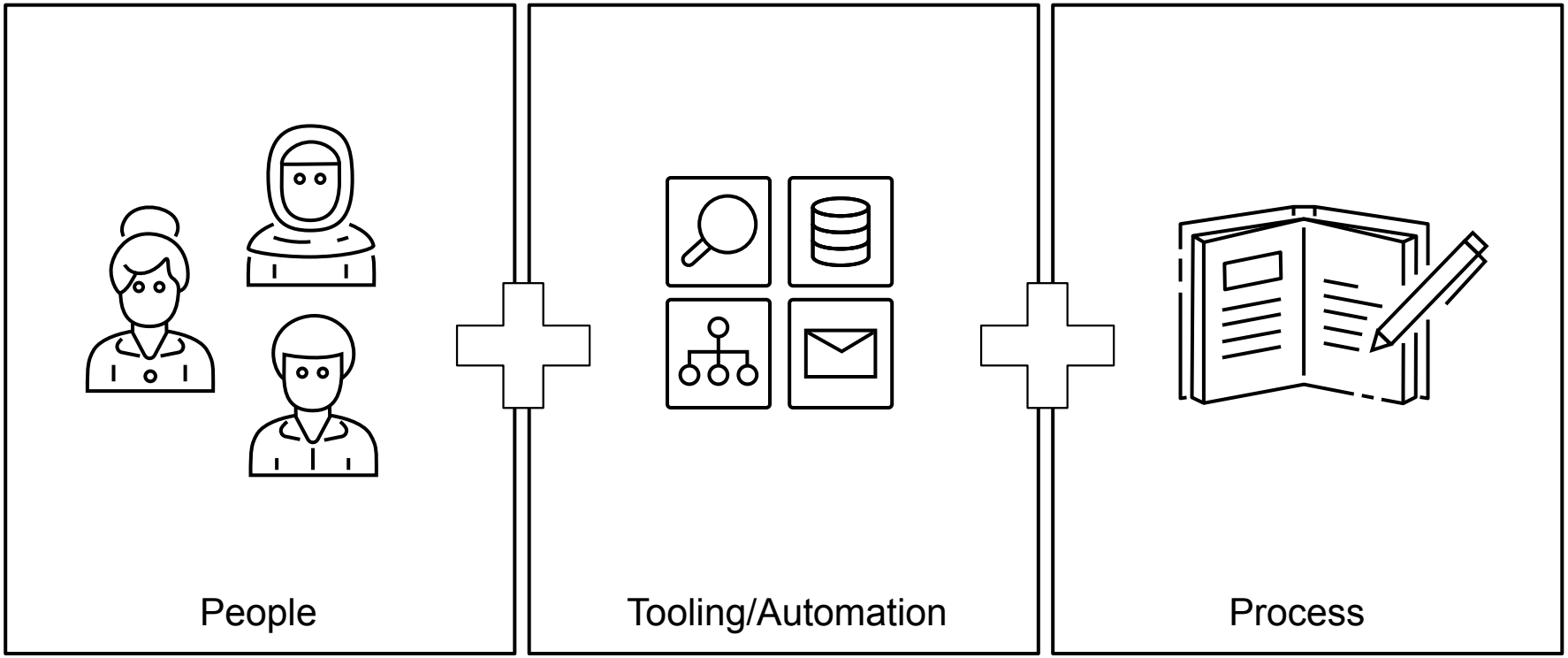
FinOps @ AWS – Summary…

Success Factors - In a Nutshell…

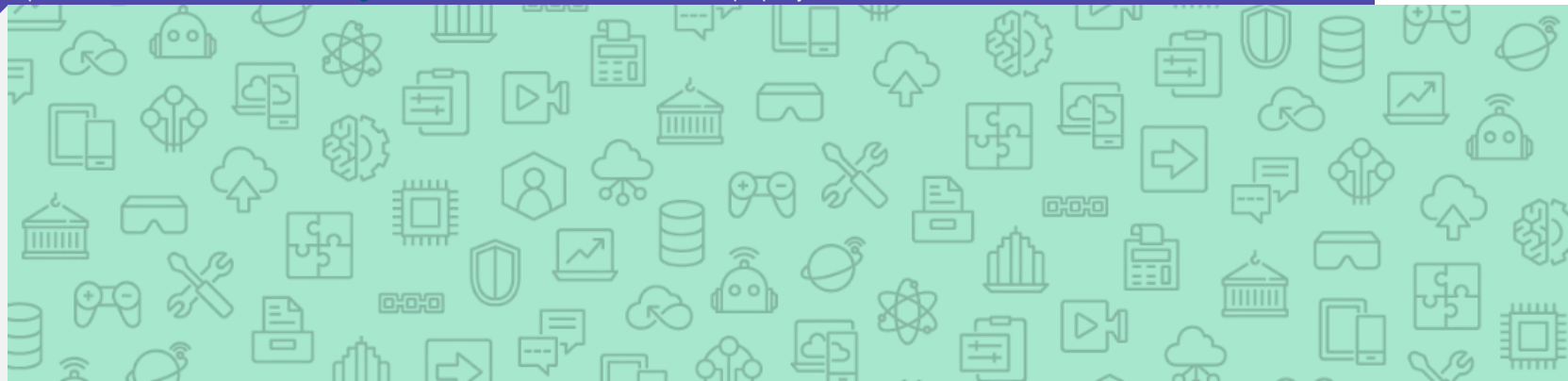


Resources

Resources

	https://amzn.to/30D0kuN
AWS Cloud Financial Management Guide	https://amzn.to/2JyHZtm
AWS CFM customer success stories	https://amzn.to/3lIt4tC
AWS Well-Architected Cost Optimization Whitepaper	https://go.aws/3v22mm8
AWS Well-Architected Tool	https://amzn.to/2H3tKer
AWS Well-Architected Cost Optimization Labs	https://bit.ly/2Bh8qPK
AWS Training & Certification: Cost Management Ramp-Up Guide	https://bit.ly/30zoIOr
AWS Cloud Financial Management for Builders (course)	https://amzn.to/2XRbOtp
AWS Cloud for Finance Professionals (course)	https://go.aws/3ITB6LO
AWS CFM Peer Connect	https://amzn.to/3qtWU98
AWS Cloud Financial Management Blog	https://amzn.to/2Mqjhck
AWS Cloud Management Tools Competency Partners	https://amzn.to/2MrtB3F
FinOps Foundation	https://bit.ly/2PtLoJg

Thank you for listening…



FinOps on nOps by

Satish Bora
GM,
satish@nops.io

We are serious about skills

aws partner network

Advanced
Technology Partner

aws partner network

Well architected Partner

Certified Cloud Management Tool

Saving millions of $ for Customers by automations

Trusted by

23andMe houzz paystack

“Cloud cost can go completely out of control if you aren’t very careful”

Easy to Spin Up, Difficult to Manage

Complex and Time Consuming

Expensive & Wasteful

2022 State of FinOps Report - FinOps Foundation

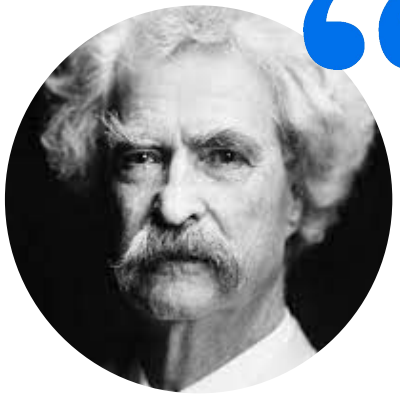
Myths of FinOps

- It’s only for large companies
- Without FinOps certified team this is impossible to implement
- It’s complex process
- To implement FinOps, we require to do upfront investment
- I will plan in next financial year or next quarter - No Bandwidth
- It’s not my goal - CEO/CFO will worry about this

Key Ingredients

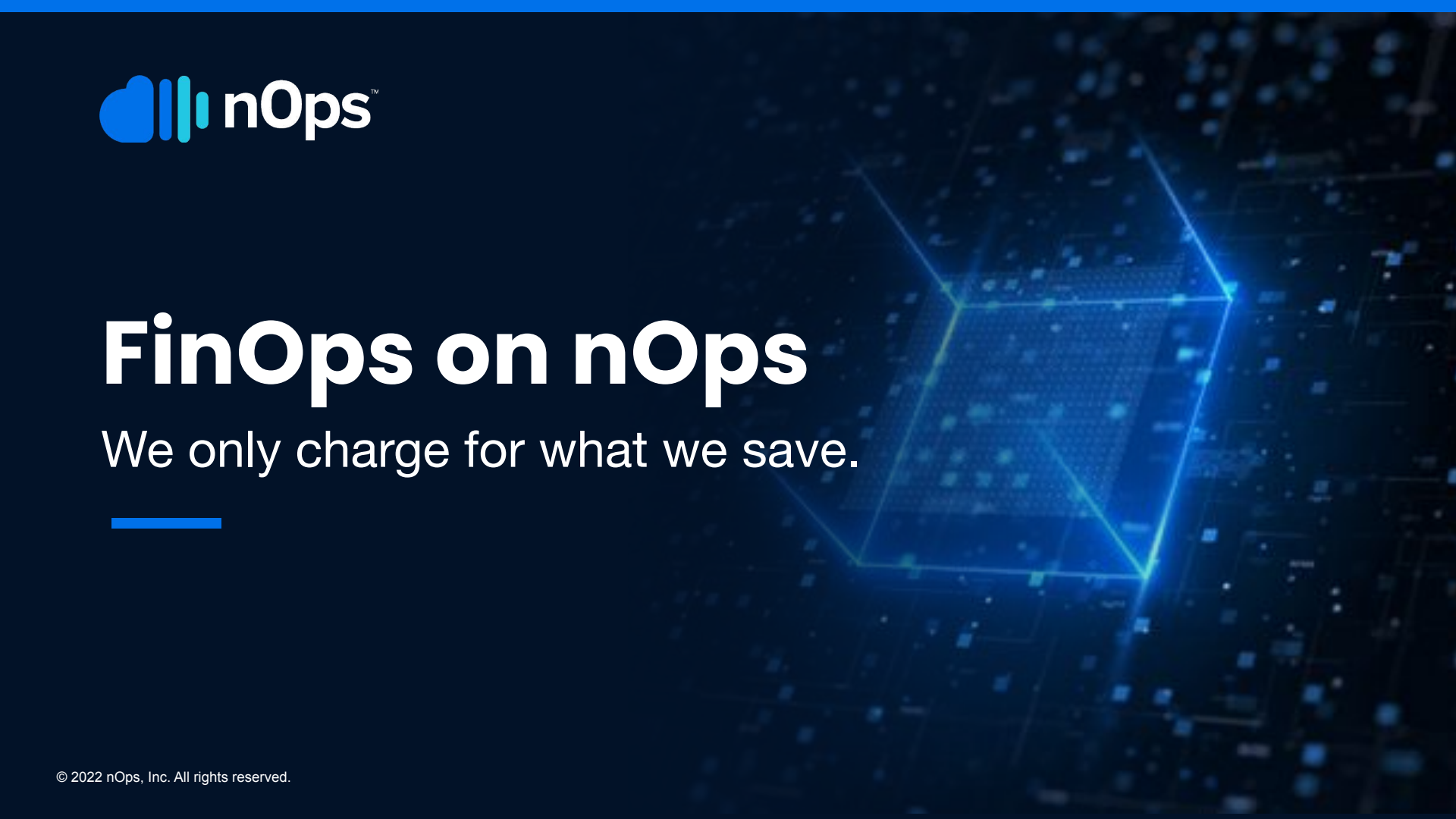
- Framework - Inform -> Optimize -> Operation
- Visibility - Drill down - Details - Context
- Key Reports & Dashboards
- Opportunities
- Manual and Automations
- Prioritization

Getting Started

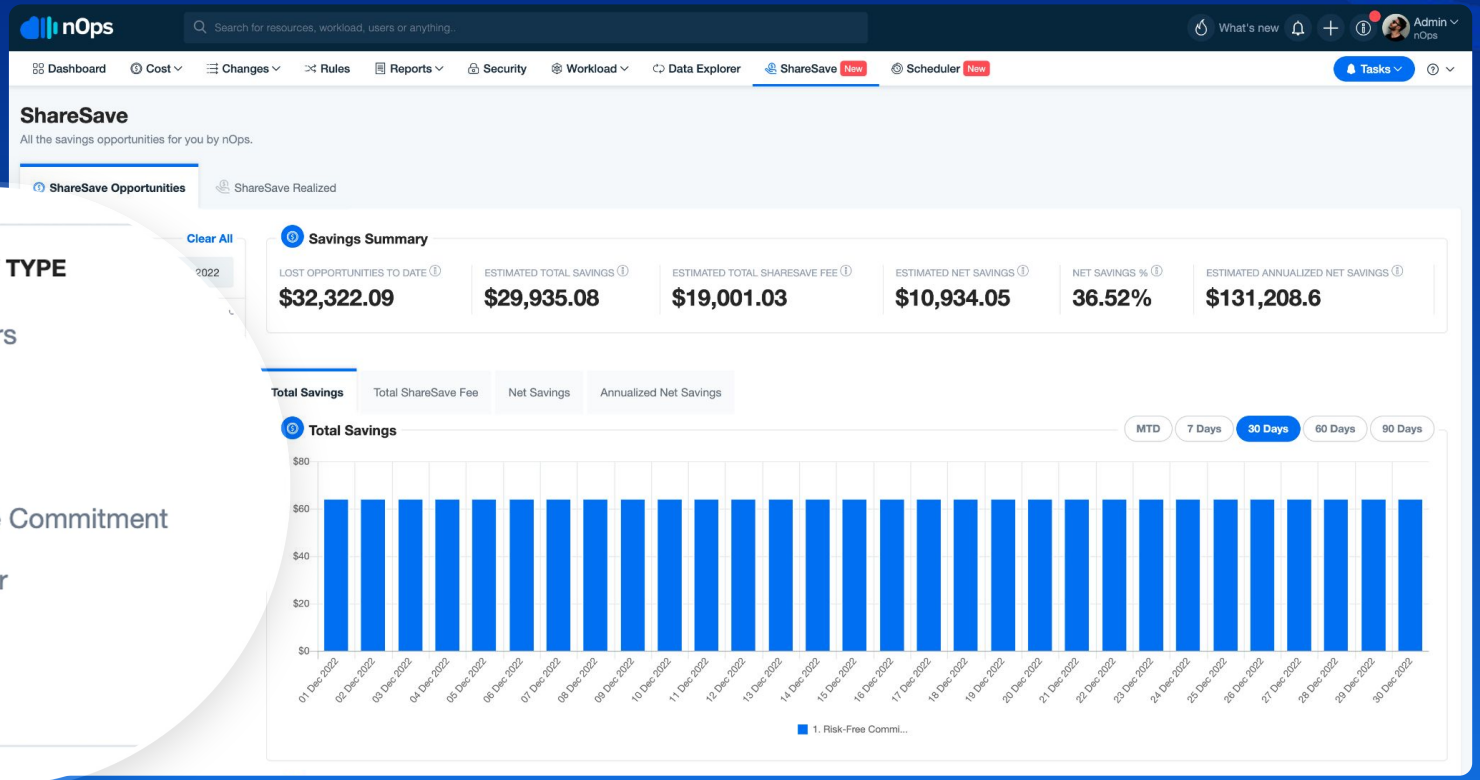


The secret of getting ahead is getting started. The secret of getting started is breaking your complex overwhelming tasks into small manageable tasks, and starting on the first one."

Mark Twain



Saving Opportunities

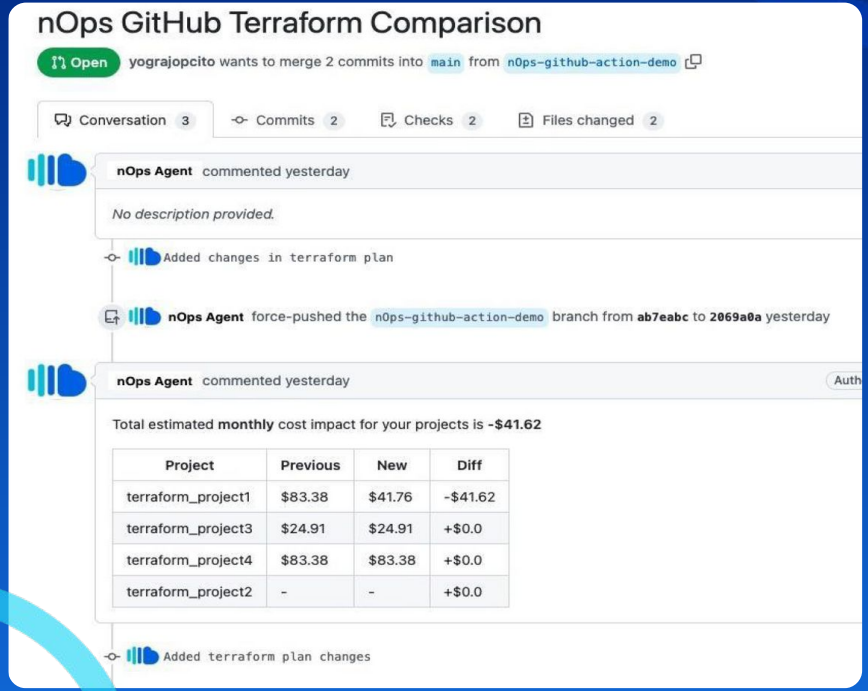


Shift Left

Through a one-step integration with GitHub Actions, automates a cost preview for any of your developer's Git Pull Requests.

Gives early insights for changes to any of your Terraform repositories

Enables FinOps to implement and ensure budgets proactively – now integrated with and part of the development workflow, this will be early in the process and with minimal staff churn.



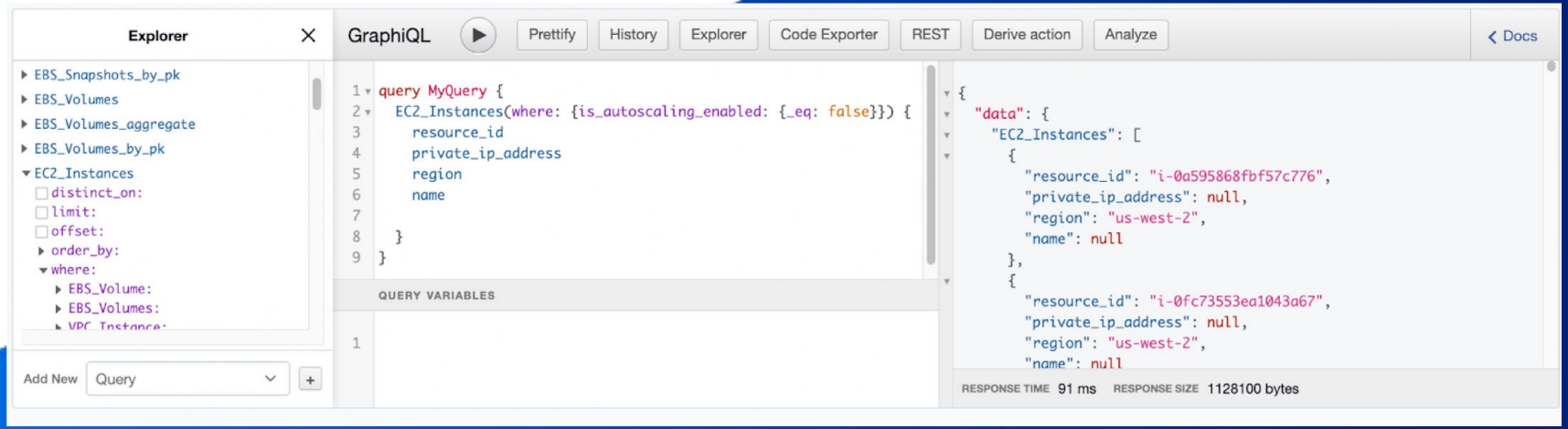
Unified Cloud Interface

Access to all your cloud data at your fingertips through GraphQL endpoints.

Explore schema and create policies

No engineering experience required

Quickly embed cloud data in your workflow



nOps - Measurable Benefits

nOps Setup - Less than 15 minutes

Automated findings and discovery within minutes

Risk Free Commitments
Cost Saving > 25%

Total Control over Security & Data

Ongoing Control and Continuous Compliance

Unique Shared Save Model Increased Efficiency

Business Growth and Improved CSAT


nOps
Flexibly Managing AWS Cost at WGTWO with nOps
Matt Long
wgtwo

Hi, my name is Matt

And I hate booking travel

Hi, my name is Matt

And I hate booking travel

And I hate managing cost on AWS

Agenda

- WGTWO
- How we got here
- Where to now?

wgtwo

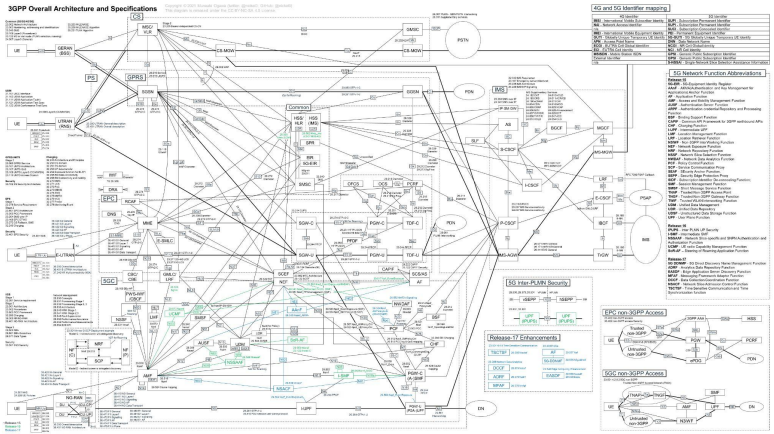
aws

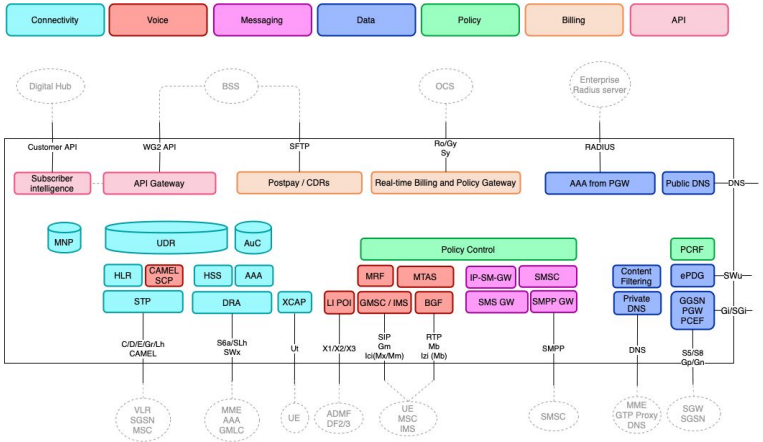
nOps™

WGTWO

From https://github.com/nickel0/3GPP-Overall-Architecture

- We build a **mobile core network**
- Provide functionality that runs a mobile network: Connectivity, Voice, Messaging, Data, Policy, Billing, APIs
- Traditional telco model is based on physical machines in a datacenter
- We believe that a cloud-native core network built as a system and a service has strong benefits
- I'm an engineering manager and responsible for our teams that include cloud infrastructure





How we got here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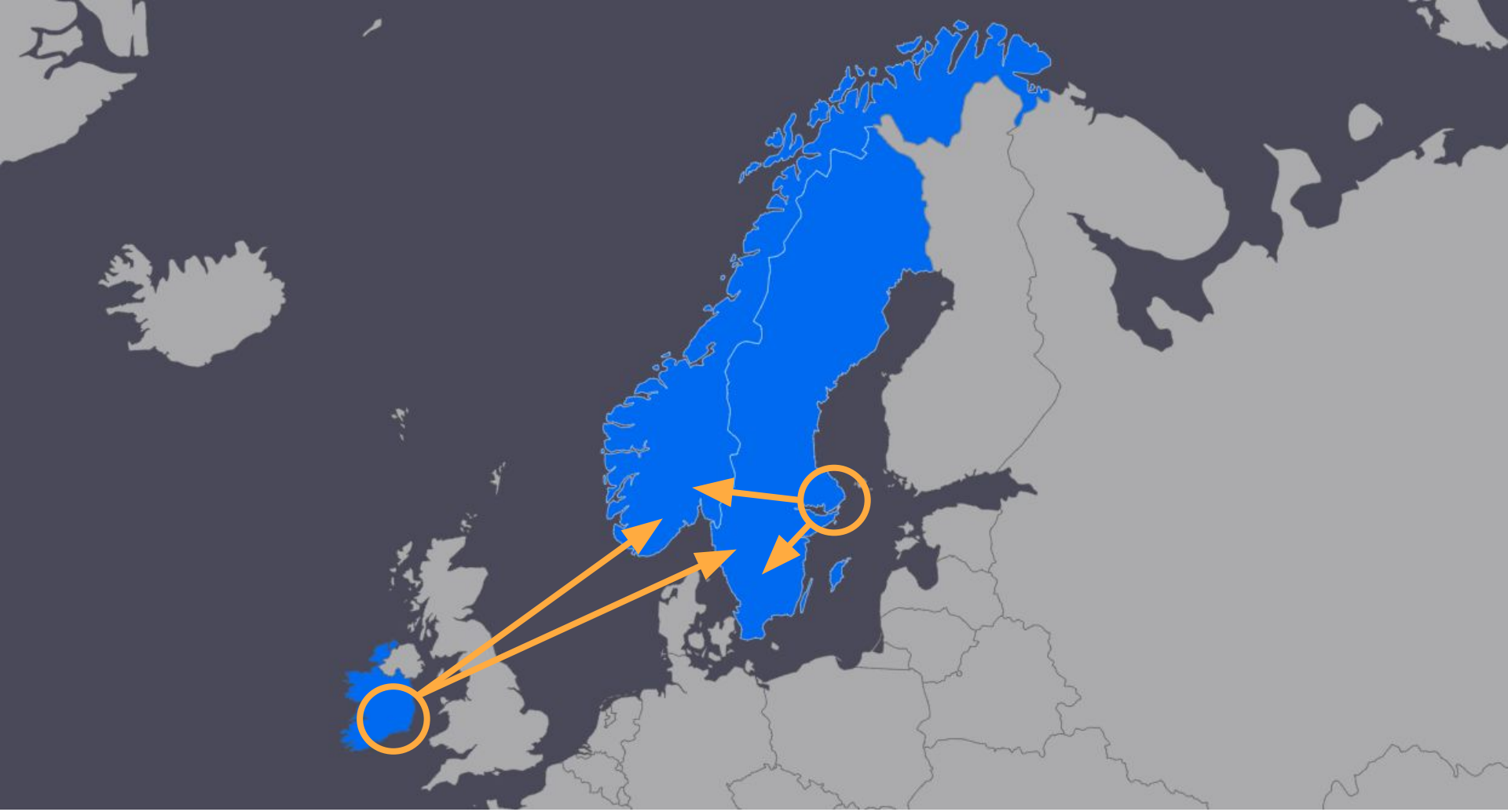


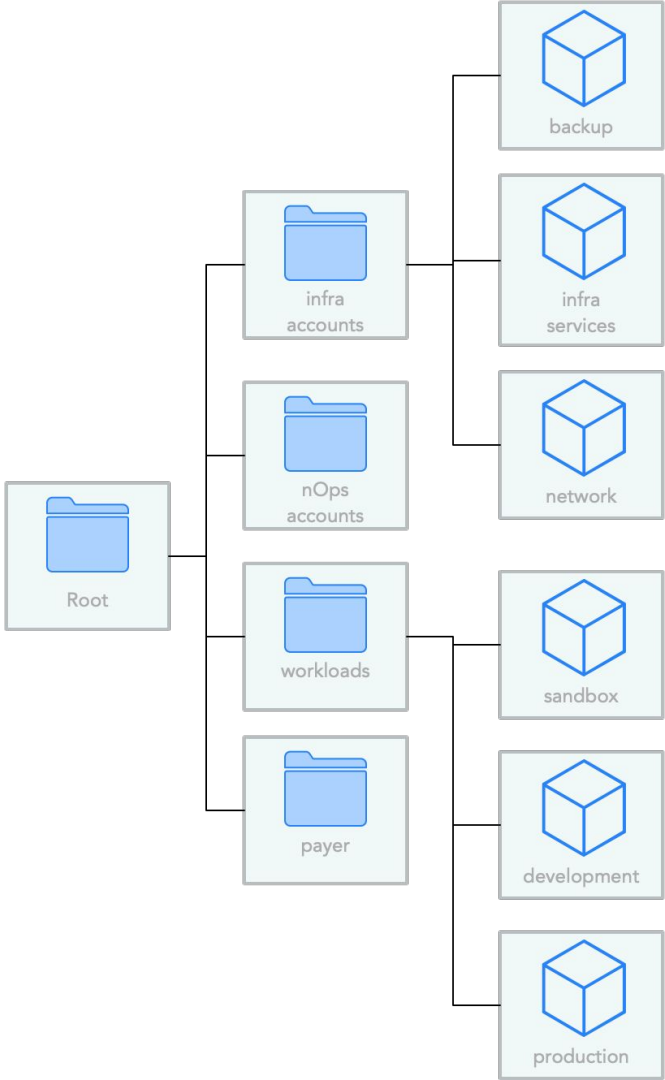
Cost optimization is… not easy

- ❏ Type?
- ❏ Region?
- ❏ Term? (1-, 3- 5- year?)
- ❏ No, partial or all up-front?
- ❏ Tenancy?
- ❏ OS? (17!! options)
- ❏ Reserved instances or savings plans?
- ❏ Standard, convertible, scheduled?

MARIA T HOFFMAN/SHUTTERSTOCK

Cost management isn’t easy either

- ❏ What if we need to scale up?
- ❏ What if we need to scale down?
- ❏ What if we need different instance types for new workloads?
- ❏ What if we need to change regions?
- ❏ What account is relevant?
- ❏ How can we track resources across all accounts?
- ❏ Is this resource still being used?



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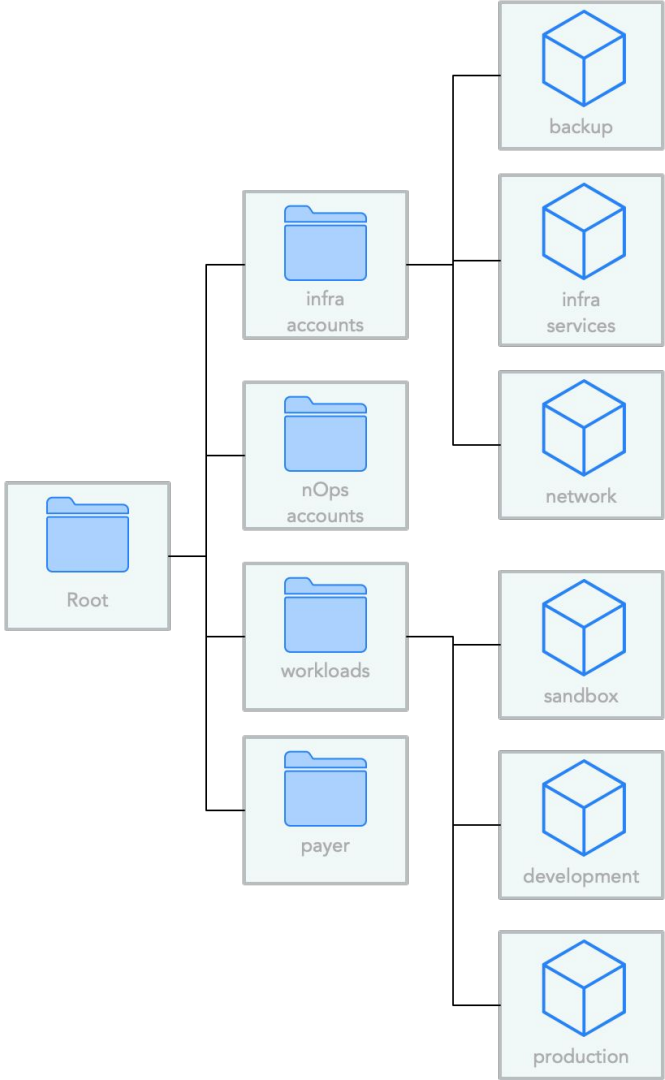
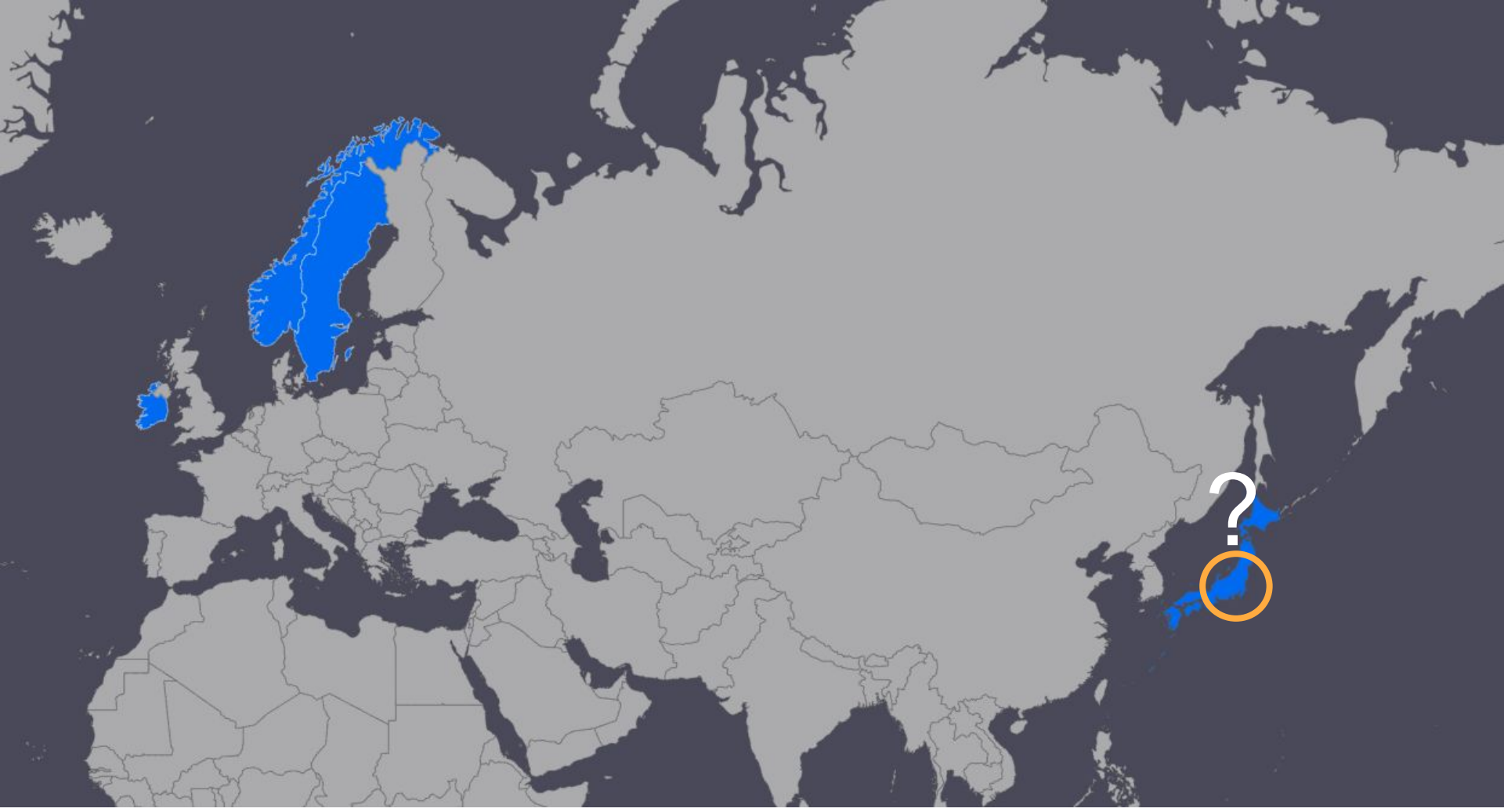
- ❑ **What if we get it wrong?**





To simplify this process, we are working with nOps, an AWS Cloud Management Tools Competency partner, to provide partners with the option to both continuously scan their environments, as well as streamline the FTR process for solutions run from your AWS account (e.g. SaaS products).

Where to now?


MR. RENTAL
Now, you're looking at now, sir. Everything that happens now is happening now.

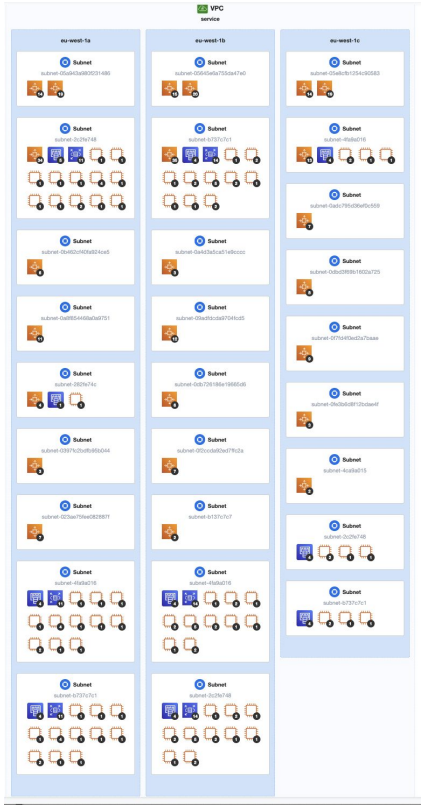
What I appreciate most about nOps

- Simplified cost tracking
- Easy answers to common questions
  - “What changed in the last month?”
  - “Do we have any unused resources?”
  - “Those Athena queries cost how much?”
- Integration with the Well-Architected Framework and Foundational Technical Review tool in AWS

Well-Architected Framework Reviews

These suddenly became a lot easier!

Pro Tip: AWS Well-Architected Labs has tools to copy reviews from one region to another

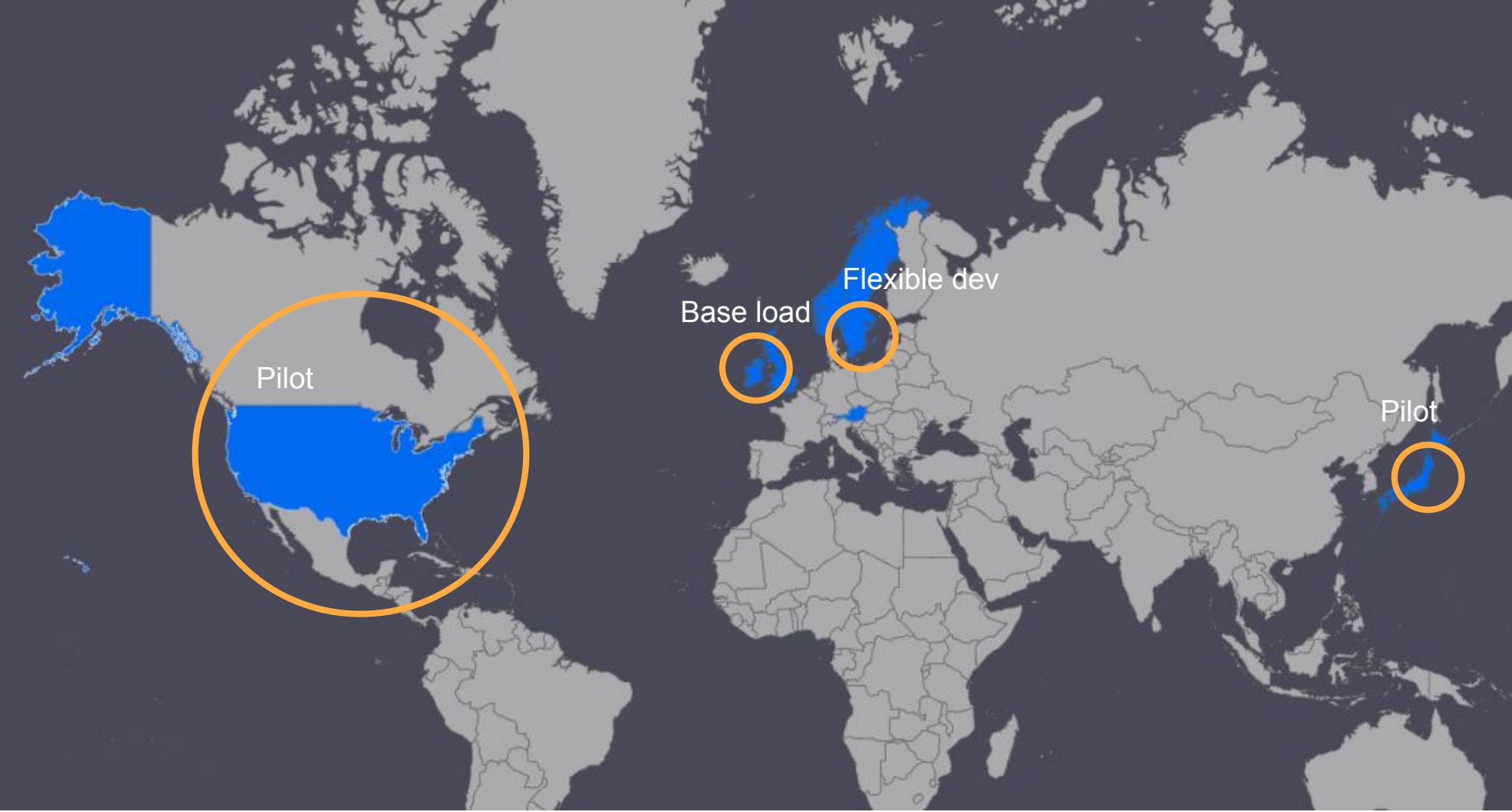


Monitor cost proactively

Answer auto-discovered No violation Last updated on 29 Nov, 2022

Now... cost optimization feels like optimization

- 94% RI coverage over the last six months
- If we managed this ourselves... we'd need to manage this ourselves
- We have the flexibility to make manual adjustments when needed, but the base rate is a 40% improvement over on-demand cost


Flexible dev
Base load
Pilot
Pilot

Any questions?

Q&A