

AWS User Group Oslo



<https://meetup.com/AWS-User-Group-Norway/>

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(Sopra Steria)

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(Webstep)

AWS RE:INVENT

re:Cap



**DEVOPS
CLOUD-OPS**

AWS RE:INVENT

re:Cap



GENERALLY AVAILABLE

Amazon CloudWatch Pattern Analysis and Anomaly Detection

Patterns view visualizes recurring patterns while querying your logs

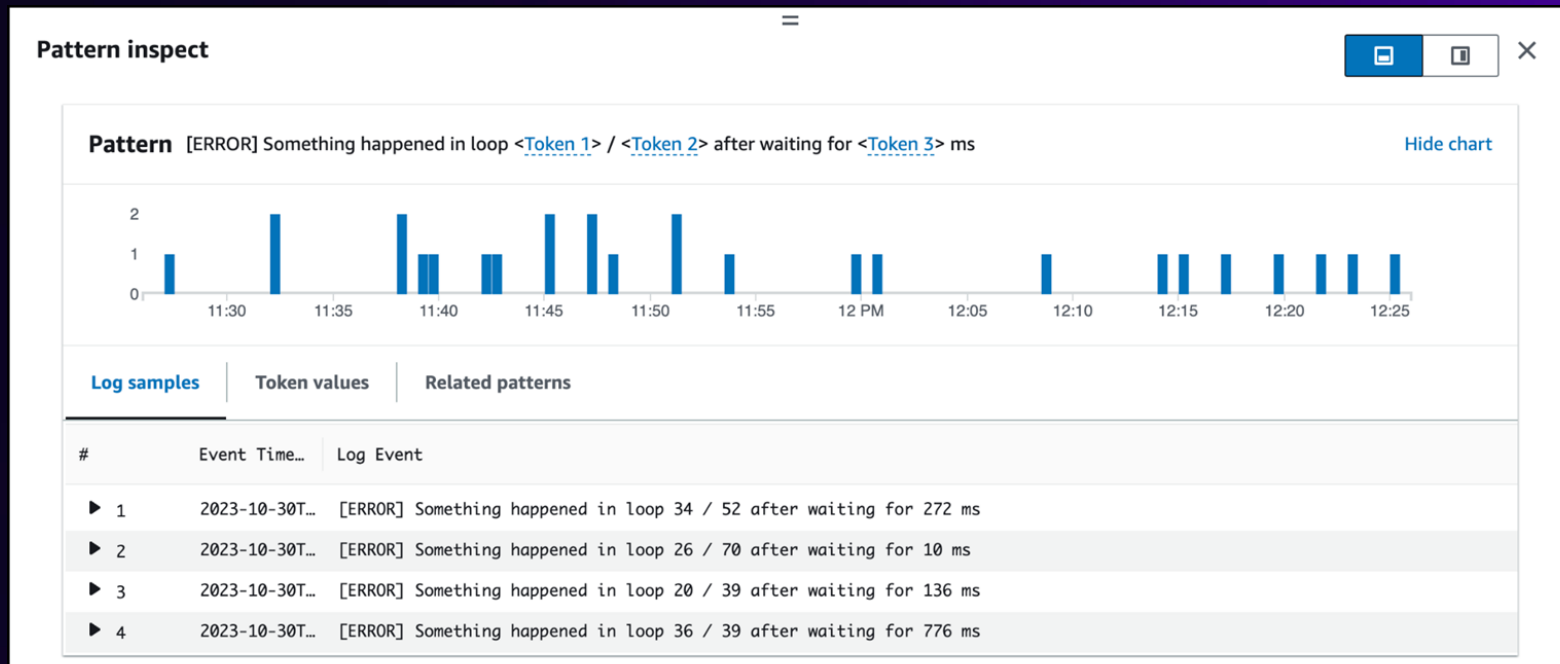
Compare mode helps you quickly find changes over time

Anomaly detection evaluates incoming logs against historical baselines



GENERALLY AVAILABLE

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Compare mode helps you quickly
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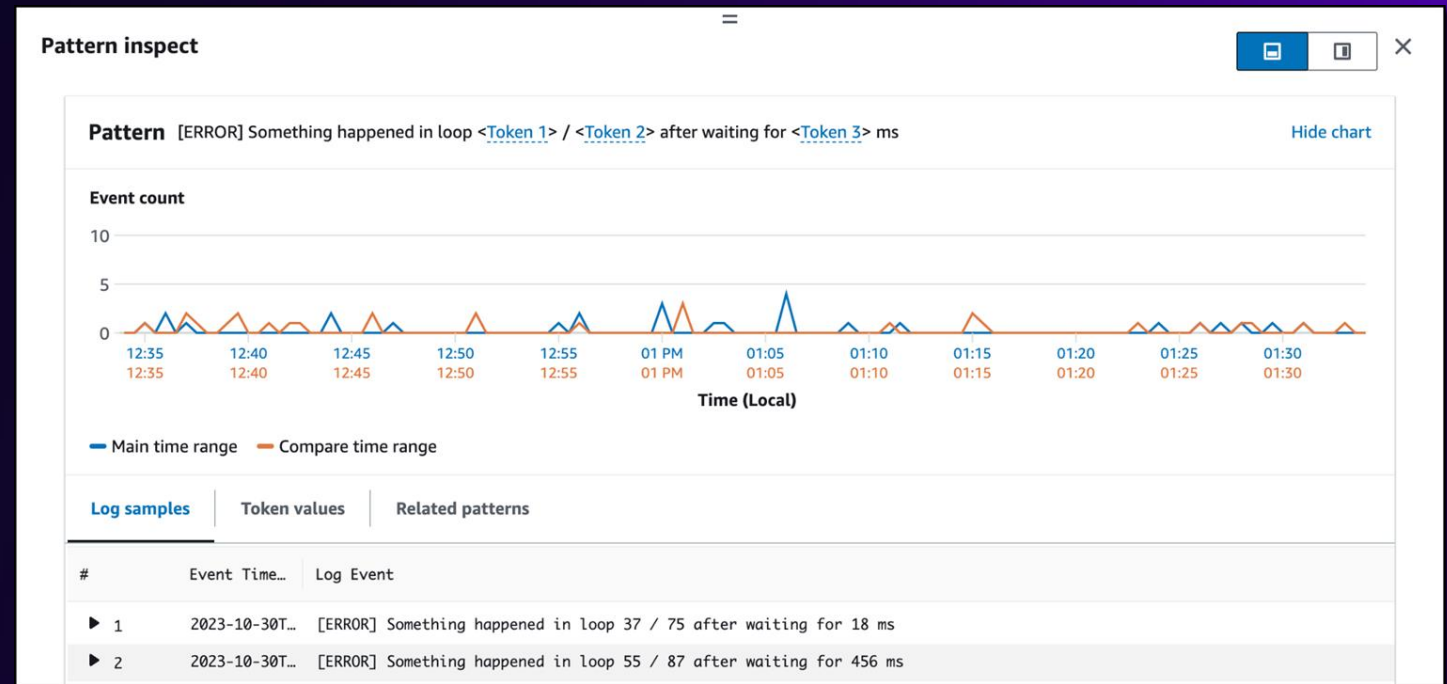
Logs (-) | **Patterns (7) - new** | Visualization

Patterns (7) Compare mode Add to query Export results Add to dashboard

A pattern is a shared text structure that recurs in your logs. Click the magnifying glass icon to analyze a pattern.

Filter patterns by pattern string, event count difference, difference description or keywords

<input type="checkbox"/>	Inspect	Pattern	Event count	Event count difference	Difference description	Severity type
<input type="checkbox"/>		[ERROR] Something happened in loop <*> / <*> after waiting for <*> ms	27	-3	↓ 10% decrease	ERROR
<input type="checkbox"/>		[INFO] All good in loop <*> / <*> after waiting for <*> ms	2,920	-129	↓ 4% decrease	INFO
<input type="checkbox"/>		END RequestId: <*>	60	+1	↑ 2% increase	NONE
<input type="checkbox"/>		REPORT RequestId: <*> Duration: <*> ms Billed Duration: <*> ms Memory Size: <*> MB Max Memory Used: <*> MB	59	+1	↑ 2% increase	NONE
<input type="checkbox"/>		START RequestId: <*> Version: \$LATEST	59	-1	↓ 2% decrease	NONE
<input type="checkbox"/>		REPORT RequestId: <*> Duration: <*> ms Billed Duration: <*> ms Memory Size: <*> MB Max Memory Used: <*> MB Init Duration: <*> ms	1	0	No change	NONE
<input type="checkbox"/>		INIT_START Runtime Version: python:<*> Runtime Version ARN: arn:aws:lambda:<*>::runtime:<*>	1	0	No change	NONE



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Amazon CloudWatch Pattern Analysis and Anomaly Detection

Log anomalies (6) [Info](#) Create alarm Refresh Actions View in Logs Insights

View a history of potential anomalies detected in the last month for log groups with activated anomaly detection.

Filter anomalies by priority level, patterns or keywords

Anomalies Suppressed < 1 > Settings

Anomaly	Priority	Log pattern	Anomaly log trend
<input type="radio"/> 47.6% increase in log event count	Low	[INFO] All good in loop <*> / <*> after waiting for <*> ms	
<input type="radio"/> 3863.5% increase in log event count	High	REPORT RequestId: <*> Duration: <*> ms Billed Duration: <*> ms Memory Size: <*> MB Max Memory Used: <*> MB Init Duration: <*> ms	
<input type="radio"/> Unexpected pattern detected	High	[ERROR] Something happened in loop <*> / <*> after waiting for <*> ms	
<input type="radio"/> Unexpected pattern detected	High	START RequestId: <*> Version: \$LATEST	
<input type="radio"/> Unexpected pattern detected	High	REPORT RequestId: <*> Duration: <*> ms Billed Duration: <*> ms Memory Size: <*> MB Max Memory Used: <*> MB	
<input type="radio"/> Unexpected pattern detected	High	END RequestId: <*>	

Anomaly detection evaluates incoming logs against historical baselines



IN PREVIEW

Amazon CloudWatch Application Signals

CloudWatch > Services

Services Info

30m 1h 3h 12h Custom Local timezone

Services by SLI status

Healthy (1) Unhealthy (2)
No SLO (1)

Top Services by fault rate

Service	Fault rate
visits-service	2.13%
pet-clinic-front...	2.08%
customers-serv...	0.04%

Top Dependency paths by fault rate

Service	Remote service	Fault rate
pet-clinic-fro...	visits-service	3.98%
customers-se...	payment-gate...	0.5%
pet-clinic-fro...	customers-se...	0.09%

Services (4) Info

Create SLO Enable Application Signals

Filter services and resources by text, property or value

Name	SLI status	Application	Hosted in
pet-clinic-frontend	2/4 Unhealthy	PetClinic_Application	Cluster app-signals-demo > Namespace default > Workload pet...
visits-service	1/1 Unhealthy	PetClinic_Application	Cluster app-signals-demo > Namespace default > Workload visi...
customers-service	1 Healthy	PetClinic_Application	Cluster app-signals-demo > Namespace default > Workload cus...
vets-service	Create SLO	PetClinic_Application	Cluster app-signals-demo > Namespace default > Workload vet...

Top Operations and Dependencies across all Services

Top Operations by volume

Volume #

visits-service > POST /owners/*/pets/{petId}/visits [m:
customers-service > GET /owners/{ownerId} [max: 325]

Top Operations by faults

Fault #

pet-clinic-frontend > POST /api/visit/owners/{ownerId}
visits-service > POST /owners/*/pets/{petId}/visits [m:

Top Operations by latency

Latency ms

pet-clinic-frontend > POST /api/visit/owners/{ownerId}
pet-clinic-frontend > PUT /api/customer/owners/town



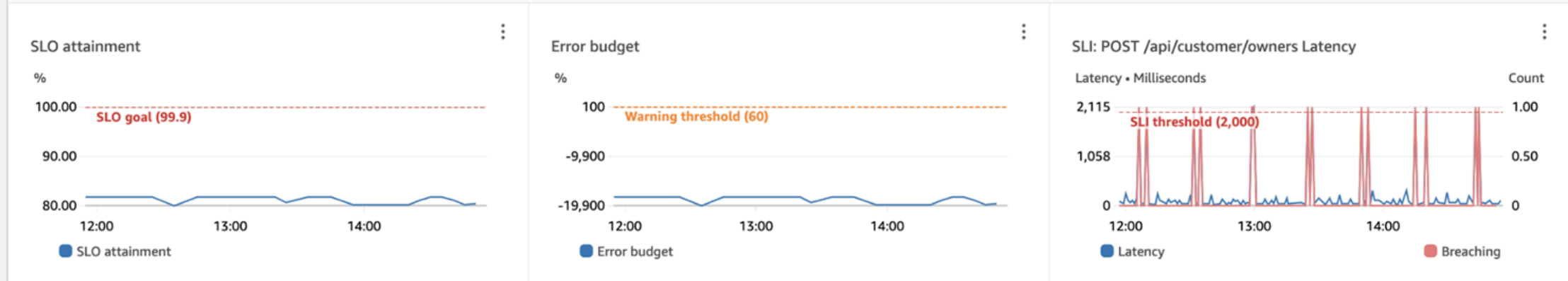
Service Level Objectives (SLO) [Info](#)

30m 1h **3h** 12h Custom Local timezone

Show selected SLO from beginning of current interval

▼ SLO selected: Latency for Registering an Owner

If there are more than 1.4333 1-minute periods where the Latency is greater than 2000ms in 1 day rolling, the SLO goal of 99.9% will not be met.



Service Level Objectives (SLO) (6) [Info](#)

Actions [Create SLO](#)

< 1 >

SLO name	Goal	SLI status	Ending attainment	Attainm...	Ending error budge...	Ending error bud...	Service
<input checked="" type="radio"/> Latency for Registering an Owner	99.9% 1 day rolling	Unhealthy	80.3%	-1.5%	-19,587.2%	-4 hours	pet-clinic-frontend
<input type="radio"/> Availability of Scheduling a Visit	95% 1 day rolling	Unhealthy	93.5%	-0.2%	-29.1%	-21 minutes	visits-service
<input type="radio"/> Availability of Listing Owners	99% 1 day rolling	Healthy	100%	0%	100%	14 minutes	customers-service

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Amazon CloudWatch Infrequent Access class

A new log class for cost-effective
log consolidation

Best suited for logs that require
infrequent querying, e.g. for
forensic analysis



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AWS Systems Manager Automation low-code Runbook design

Drag and drop automation actions and AWS APIs and connect them as steps

Features a guided flow, best practice recommendations, and error highlighting

Integrates with Amazon CodeGuru Security for embedded Python scripts





Create Automation Runbooks with AWS Systems Manager Visual Designer

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AWS Management Console myApplications

Monitor and manage the cost, health, security posture, and performance of your applications

The screenshot displays the AWS Management Console interface for the 'EasyLogistics' application. The dashboard is organized into several sections:

- Application summary:** Provides details about the application, including its name, description, region (us-east-2), and application tags.
- Cost and usage:** Shows current month costs of \$36,770, a label for key costs of \$38,207 (up 63% over last month), last month costs of \$23,082.27, and average month costs of \$20,482.35. A stacked bar chart illustrates costs per month from April to September 2023, categorized by services like EC2-Instances, CloudWatch, S3, Config, Cloudtrail, Relational Database Service, Audit Manager, Elastic Load Balancing, EC2-Other, and Others.
- Compute:** Offers a summary of resources: 30 EC2 alarms, 52 EC2 instances, 14 autoscaling groups, 12 Elastic Load Balancers, 22 Lambda alarms, and 275 Lambda functions. It includes detailed views for EC2 (CPU utilization and NetworkIn) and Lambda (Invocations and Fail rate) over time.
- DevOps:** Displays OpsItems by severity (15 total) and Managed EC2 Instances (70% patch compliance, 7/10). It also shows Config compliance with options to create patch policies and set up conformance packs.
- Monitoring and operations:** Features Alarms (12 critical, 23 healthy, 0 disabled), Canaries (1 unhealthy), and Service Level Indicator (SLI) status (5/20 unhealthy). A performance metrics section shows Top Operations by latency and a Latency (ms) line chart.



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Collector for Prometheus metrics from Amazon EKS

Amazon Managed Service for Prometheus collector, a fully-managed agentless collector customers can use to collect Prometheus metrics from their workloads running on Amazon EKS.



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CloudWatch now supports hybrid and multicloud metrics querying and alarming

With this feature, you can consolidate and visualize metrics from sources such as:

- Amazon OpenSearch Service
- Amazon Managed Service for Prometheus
- Azure Monitor (!)
- your own custom data sources

Query in real time, increase visibility into your application health and resolve critical events faster.



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AWS Config now supports periodic recording

Periodic recording captures the latest configuration changes of your resources once every 24 hours, reducing the number of changes delivered.

Both continuous and periodic recording options are priced based on the number of configurations items.



GENERALLY AVAILABLE

AWS Config now supports periodic recording

Settings

Recording method

Recording strategy

Customize AWS Config to record configuration changes for all supported resource types, or for only the supported resource types that are relevant to you. Globally recorded resources (RDS global clusters and IAM users, groups, roles, and customer managed policies) may be recorded in more than this Region. [Learn more](#) You are charged based on the number of configuration items recorded. [Pricing details](#)

All resource types with customizable overrides
AWS Config will record all current and future supported resource types in this Region. You can override the recording frequency for specific resource types or exclude specific resource types from recording.

Specific resource types
AWS Config will only record the resource types that you specify.

Default settings

Recording frequency

Configure the default recording frequency for all current and future supported resource types. It impacts the cost to your bill. [Pricing details](#)

- Continuous recording**
Record configuration changes continuously whenever a change occurs.
- Daily recording**
Receive configuration data once every day only if a change has occurred.

Override settings

Resource types to override [Info](#)

Override the recording frequency for specific resource types, or exclude specific resource types from recording. If you change the recording frequency for a resource type or stop recording a resource type, the configuration items that were already recorded will remain unchanged.

Resource type

AWS Lambda Function

AWS EC2 Instance

Add resource type

Override

Exclude from recording

Set to daily recording

Set to daily recording

Exclude from recording

Remove

Remove

You can add up to 99 more frequency overrides and 599 more exclusion overrides.



GENERALLY AVAILABLE

Customizable rightsizing recommendations for EC2 Instances

Customizable EC2 rightsizing recommendations within AWS Compute Optimizer.

The new 32 day lookback option (14 days is default) allows you to configure recommendations to use one month of utilization data when calculating the recommendation results.



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Customizable rightsizing recommendations for EC2 Instances

CPU usage

Threshold [Info](#)

Utilization threshold corresponds to the percentage of time that your workload should run under your utilization headroom.

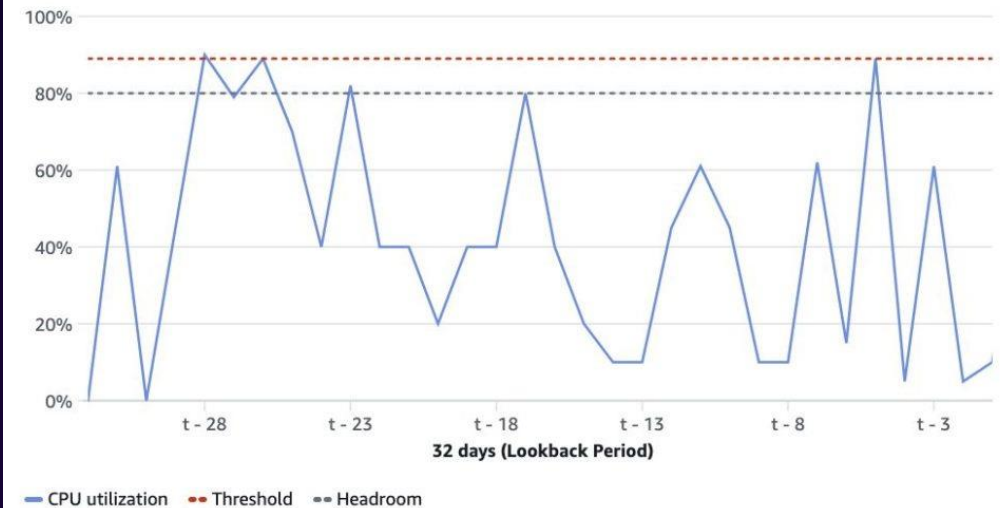
- P90 (least sensitive) P95 P99.5 (default: most conservative)

Headroom [Info](#)

Utilization headroom is extra processing capacity beyond historical usage.

- 0% (no buffer) 20% (default) 30% (high performance buffer)

CPU utilization (simulated)



Data shown is representative and for illustrative purpose only.

In this example scenario, Compute Optimizer would provide upsizing recommendations.

In an actual deployment, given the threshold and utilization values you selected, Compute Optimizer would only generate recommendations that allow CPU usage to remain 80% for up to 0.5% of the time.

CPU utilization presets

Choose a preset to configure the threshold and headroom values of CPU usage.

Maximum savings

Balanced

Default

Maximum performance



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AWS Control Tower landing zone operations APIs

Customers can discover, create, update, and reset their landing zones, as well as manage landing zone customizations, using APIs.



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AWS Control Tower landing zone operations APIs

- CreateLandingZone
- DeleteLandingZone
- DisableControl
- EnableControl
- GetControlOperation
- GetEnabledControl
- GetLandingZone
- GetLandingZoneOperation
- ListEnabledControls
- ListLandingZones
- ListTagsForResource
- ResetLandingZone
- TagResource
- UntagResource
- UpdateEnabledControl
- UpdateLandingZone



Example LandingZoneManifest.json manifest for the CreateLandingZone API call:

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AWS Control Tower landing zone operations APIs

```
{
  "governedRegions": ["eu-west-1", "eu-central-1", "eu-north-1"],
  "organizationStructure": {
    "security": {
      "name": "CORE"
    },
    "sandbox": {
      "name": "Sandbox"
    }
  },
  "centralizedLogging": {
    "accountId": "222222222222",
    "configurations": {
      "loggingBucket": {
        "retentionDays": 60
      },
      "accessLoggingBucket": {
        "retentionDays": 60
      },
      "kmsKeyArn": "arn:aws:kms:us-west-1:123456789123:key/e84XXXXX-6bXX-49XX-9eXX-ecfXXXXXXXXXX"
    },
    "enabled": true
  },
  "securityRoles": {
    "accountId": "333333333333"
  },
  "accessManagement": {
    "enabled": true
  }
}
```



GENERALLY AVAILABLE

65 new controls to help meet digital sovereignty requirements in AWS Control Tower

With this release, you can discover 245+ controls under a new digital sovereignty group in the AWS Control Tower console.



AWS DeepRacer event - Oslo February 7th

AWS DeepRacer is the fastest way to get your team started with Machine Learning (ML). Utilize the virtual 3D racing simulator, 1/18th scale autonomous RC cars, and foster organization wide collaboration and competition!

Sign up here: <https://aws-experience.com/emea/north/event/e4a30793-ce9a-4b6d-a0c7-555b5c81a1a4>

