# flexera

# Policy Catalog AWS Permissions List

This document contains a list of cloud provider permissions required by each AWS policy template in the Flexera Cloud Cost Optimization Policy Catalog.

- Required permissions may change as policy templates in the catalog are updated. An up-to-date version of this PDF file is [available in the Flexera Policy Template Github Repository](#).
- *Required* permissions are required for the policy template in question to work correctly; *optional* permissions enable additional functionality.
- Permissions with a green *Read Only* label are read-only, while those with a red *Write* label can potentially make changes to your cloud environment.

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## AWS Account Credentials 0.1.5

**AWS Required Permissions:**
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Accounts Missing Service Control Policies 3.0.3

**AWS Required Permissions:**
organizations:ListAccounts *Read Only*
organizations:ListPolicies *Read Only*
organizations:ListPoliciesForTarget *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Burstable EC2 Instances 4.4.1

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
cloudwatch:ListMetrics *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DescribeInstanceStatus *Write*
ec2:ModifyInstanceAttribute *Write*
ec2:StartInstances *Write*
ec2:StopInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS Cheaper Regions 1.0.2

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS CloudTrail Not Enabled In All Regions 3.0.3

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
cloudtrail:GetEventSelectors *Read Only*
cloudtrail:GetTrailStatus *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS CloudTrail S3 Buckets Without Access Logging 3.0.3

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
s3:GetBucketLocation *Read Only*
s3:GetBucketLogging *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS CloudTrails Not Integrated With CloudWatch 3.0.3

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
cloudtrail:GetTrailStatus *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

## AWS CloudTrails With Read Logging Enabled 0.1.3

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
cloudtrail:GetEventSelectors *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
cloudtrail:PutEventSelectors *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS CloudTrails Without Encrypted Logs 3.0.3

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS CloudTrails Without Log File Validation Enabled 3.0.4

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS CloudTrails Without Object-level Events Logging Enabled 3.0.3

**AWS Required Permissions:**
cloudtrail:DescribeTrails *Read Only*
cloudtrail:GetEventSelectors *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Cost Report - EC2 Instance Cost Per Hour 0.2.1

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

## AWS Customer Managed Keys (CMKs) Without Rotation Enabled
3.0.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
kms:GetKeyRotationStatus *Read Only*
kms:ListKeys *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

## AWS Disallowed Regions 5.0.3

**AWS Required Permissions:**
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:StopInstances *Write*
ec2:TerminateInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

## AWS EC2 Compute Optimizer Recommendations 0.3.3

**AWS Required Permissions:**
compute-optimizer:GetEC2InstanceRecommendations *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:ModifyInstanceAttribute *Write*
ec2:StartInstances *Write*
ec2:StopInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

## AWS EC2 Instances Time Stopped Report 0.2.3

**AWS Required Permissions:**
ec2:DescribeInstances *Read Only*

ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DescribeInstanceStatus *Write*
ec2:StopInstances *Write*
ec2:TerminateInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS EC2 Instances not running FlexNet Inventory Agent 4.3.4

**AWS Required Permissions:**
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*

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## AWS EKS Clusters Without Spot Instances 0.1.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
eks:DescribeCluster *Read Only*
eks:DescribeNodegroup *Read Only*
eks:ListClusters *Read Only*
eks:ListNodegroups *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Elastic Load Balancers With Unencrypted Listeners 4.0.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
elasticloadbalancing:DescribeListeners *Read Only*
elasticloadbalancing:DescribeLoadBalancers *Read Only*
elasticloadbalancing:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Expiring Reserved Instances 3.0.2

**Flexera Required Permissions:**

billing_center_viewer *Read Only*

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## AWS Expiring Savings Plans 3.0.2

**AWS Required Permissions:**
savingsplans:DescribeSavingsPlans *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS GP3 Upgradeable Volumes 4.4.6

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
ec2:DescribeVolumes *Read Only*
pricing:GetProducts *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Account Missing Support Role 3.0.4

**AWS Required Permissions:**
iam:ListEntitiesForPolicy *Read Only*
iam:ListPolicies *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Attached Admin Policies 3.0.4

**AWS Required Permissions:**
iam:GetPolicyVersion *Read Only*
iam:ListPolicies *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Expired SSL/TLS Certificates 3.0.4

**AWS Required Permissions:**
iam:ListServerCertificates *Read Only*

sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Insufficient Required Password Length 3.0.4

**AWS Required Permissions:**
iam:GetAccountPasswordPolicy *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Password Policy Not Restricting Password Reuse 3.0.4

**AWS Required Permissions:**
iam:GetAccountPasswordPolicy *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Role Audit 3.0.5

**AWS Required Permissions:**
iam:ListRoleTags *Read Only*
iam:ListRoles *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Root Account Access Keys 3.0.4

**AWS Required Permissions:**
iam:GetAccountSummary *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS IAM Root User Account Without Hardware MFA 3.0.4

**AWS Required Permissions:**

iam:GetAccountSummary *Read Only*
iam:ListVirtualMFADevices *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS IAM Root User Account Without MFA 3.0.4

**AWS Required Permissions:**
iam:GetAccountSummary *Read Only*
iam:ListVirtualMFADevices *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS IAM Root User Doing Everyday Tasks 3.0.4

**AWS Required Permissions:**
iam:GenerateCredentialReport *Read Only*
iam:GetCredentialReport *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

# AWS IAM User Accounts Without MFA 3.0.4

**AWS Required Permissions:**
iam:GenerateCredentialReport *Read Only*
iam:GetCredentialReport *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS IAM Users With Directly-Attached Policies 3.0.4

**AWS Required Permissions:**
iam:ListAttachedUserPolicies *Read Only*
iam:ListUserPolicies *Read Only*
iam:ListUsers *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**

billing_center_viewer *Read Only*

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## AWS IAM Users With Multiple Active Access Keys 3.0.4

**AWS Required Permissions:**
iam:ListAccessKeys *Read Only*
iam:ListUsers *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS IAM Users With Old Access Keys 3.0.4

**AWS Required Permissions:**
iam:GenerateCredentialReport *Read Only*
iam:GetCredentialReport *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Idle Compute Instances 5.6.6

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
cloudwatch:GetMetricStatistics *Read Only*
cloudwatch:ListMetrics *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeTags *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Idle NAT Gateways 0.1.4

**AWS Required Permissions:**
ec2:DescribeNatGateways *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DeleteNatGateway *Write*

**Flexera Required Permissions:**

billing_center_viewer *Read Only*

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## AWS Internet-Accessible Elastic Load Balancers 4.0.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
elasticloadbalancing:DescribeListeners *Read Only*
elasticloadbalancing:DescribeLoadBalancers *Read Only*
elasticloadbalancing:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
elasticloadbalancing:DeleteLoadBalancer *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Lambda Functions With High Error Rate 5.0.3

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
cloudwatch:ListMetrics *Read Only*
ec2:DescribeRegions *Read Only*
lambda:ListFunctions *Read Only*
lambda:ListTags *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Lambda Functions Without Provisioned Concurrency 0.1.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
lambda:ListFunctions *Read Only*
lambda:ListProvisionedConcurrencyConfigs *Read Only*
lambda:ListTags *Read Only*
lambda:ListVersionsByFunction *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Long Running Instances 5.1.3

**AWS Required Permissions:**
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DescribeInstanceStatus *Write*
ec2:StopInstances *Write*
ec2:TerminateInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Long Stopped EC2 Instances 6.0.3

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
cloudwatch:GetMetricStatistics *Read Only*
cloudwatch:ListMetrics *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DescribeInstanceStatus *Write*
ec2:TerminateInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Missing Regions 0.2.3

**AWS Required Permissions:**
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS New Marketplace Products 0.3.5

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Object Storage Optimization 4.0.5

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetObject *Read Only*
s3:GetObjectTagging *Read Only*
s3:ListAllMyBuckets *Read Only*
s3:ListBucket *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
s3:DeleteObject *Write*
s3:PutObject *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS Old Snapshots 8.4.6

**AWS Required Permissions:**
cloudtrail:LookupEvents *Read Only*
ec2:DescribeImages *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeSnapshots *Read Only*
rds:DescribeDBClusterSnapshots *Read Only*
rds:DescribeDBClusters *Read Only*
rds:DescribeDBInstances *Read Only*
rds:DescribeDBSnapshots *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DeleteSnapshot *Write*
ec2:DeregisterImage *Write*
rds:DeleteDBClusterSnapshot *Write*
rds:DeleteDBSnapshot *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS Open S3 Buckets 3.1.3

**AWS Required Permissions:**
s3:GetBucketAcl *Read Only*
s3:GetBucketLocation *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS Oversized S3 Buckets 3.1.3

## AWS Required Permissions:
cloudwatch:GetMetricData *Read Only*
cloudwatch:ListMetrics *Read Only*
s3:GetBucketLocation *Read Only*
s3:GetBucketTagging *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

## Flexera Required Permissions:
billing_center_viewer *Read Only*

---

# AWS Overutilized EC2 Instances 0.1.1

## AWS Required Permissions:
cloudwatch:GetMetricData *Read Only*
cloudwatch:GetMetricStatistics *Read Only*
cloudwatch:ListMetrics *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

## AWS Optional Permissions:
ec2:DescribeInstanceStatus *Write*
ec2:ModifyInstanceAttribute *Write*
ec2:StartInstances *Write*
ec2:StopInstances *Write*

## Flexera Required Permissions:
billing_center_viewer *Read Only*

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# AWS Publicly Accessible CloudTrail S3 Buckets 3.0.3

## AWS Required Permissions:
cloudtrail:DescribeTrails *Read Only*
s3:GetBucketAcl *Read Only*
s3:GetBucketLocation *Read Only*
s3:GetBucketPolicy *Read Only*
sts:GetCallerIdentity *Read Only*

## Flexera Required Permissions:
billing_center_viewer *Read Only*

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# AWS Publicly Accessible RDS Instances 5.1.1

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
rds:DescribeDBInstances *Read Only*
rds:ListTagsForResource *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
rds:DeleteDBInstance *Write*
rds:ModifyDBInstance *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS RDS Instances 4.2.6

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
rds:DescribeDBInstances *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS RDS Instances With Unapproved Backup Settings 3.0.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
rds:DescribeDBInstances *Read Only*
rds:ListTagsForResource *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Regions Without Access Analyzer Enabled 4.0.4

**AWS Required Permissions:**
access-analyzer:ListAnalyzers *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Regions Without Config Fully Enabled 3.0.3

**AWS Required Permissions:**
config:DescribeConfigurationRecorderStatus *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Regions Without Default EBS Encryption 4.0.2

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
ec2:GetEbsEncryptionByDefault *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Reserved Instances Coverage 3.0.2

**AWS Required Permissions:**
ce:GetReservationCoverage *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Reserved Instances Recommendations 3.6.4

**AWS Required Permissions:**
ce:GetReservationPurchaseRecommendation *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Reserved Instances Utilization 3.0.2

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Resources Under Extended Support 0.2.4

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS Rightsize EBS Volumes 0.3.5

## AWS Required Permissions:
ec2:DescribeRegions *Read Only*
ec2:DescribeVolumes *Read Only*
pricing:GetProducts *Read Only*

## AWS Optional Permissions:
ec2:ModifyVolume *Write*

## Flexera Required Permissions:
billing_center_viewer *Read Only*

---

# AWS Rightsize EC2 Instances 5.4.1

## AWS Required Permissions:
cloudwatch:GetMetricData *Read Only*
cloudwatch:GetMetricStatistics *Read Only*
cloudwatch:ListMetrics *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

## AWS Optional Permissions:
ec2:DescribeInstanceStatus *Write*
ec2:ModifyInstanceAttribute *Write*
ec2:StartInstances *Write*
ec2:StopInstances *Write*
ec2:TerminateInstances *Write*

## Flexera Required Permissions:
billing_center_viewer *Read Only*

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# AWS Rightsize ElastiCache 0.3.1

## AWS Required Permissions:
cloudwatch:GetMetricData *Read Only*
ec2:DescribeRegions *Read Only*
elasticache:DescribeCacheClusters *Read Only*
elasticache:ListTagsForResource *Read Only*
sts:GetCallerIdentity *Read Only*

## AWS Optional Permissions:
elasticache:ModifyCacheCluster *Write*

## Flexera Required Permissions:
billing_center_viewer *Read Only*

# AWS Rightsize RDS Instances 5.8.2

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
cloudwatch:GetMetricStatistics *Read Only*
ec2:DescribeRegions *Read Only*
rds:DescribeDBInstances *Read Only*
rds:DescribeOrderableDBInstanceOptions *Read Only*
rds:ListTagsForResource *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
rds:DeleteDBInstance *Write*
rds:ModifyDBInstance *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

# AWS Rightsize Redshift 0.1.4

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
ec2:DescribeRegions *Read Only*
redshift:DescribeClusters *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
redshift:ModifyCluster *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

# AWS Rule-Based Dimension From Account Tags 3.0.1

**Flexera Required Permissions:**
billing_center_viewer *Read Only*
observer *Read Only*
rule_based_dimensions_manager *Read Only*

# AWS S3 Buckets Accepting HTTP Requests 3.0.3

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketPolicy *Read Only*
s3:GetBucketTagging *Read Only*

s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS S3 Buckets Without Default Encryption Configuration 3.0.3

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketTagging *Read Only*
s3:GetEncryptionConfiguration *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
s3:DeleteBucket *Write*
s3:PutEncryptionConfiguration *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS S3 Buckets Without Intelligent Tiering 4.0.3

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketTagging *Read Only*
s3:GetIntelligentTieringConfiguration *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS S3 Buckets Without Lifecycle Configuration 0.1.2

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketTagging *Read Only*
s3:GetLifecycleConfiguration *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS S3 Buckets Without MFA Delete Enabled 3.0.3

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketTagging *Read Only*
s3:GetBucketVersioning *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS S3 Buckets Without Public Access Blocked 3.0.3

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketPublicAccessBlock *Read Only*
s3:GetBucketTagging *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS S3 Buckets Without Server Access Logging 3.0.3

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketLogging *Read Only*
s3:GetBucketTagging *Read Only*
s3:ListAllMyBuckets *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
s3:PutBucketLogging *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS S3 Incomplete Multi-Part Uploads 0.1.1

**AWS Required Permissions:**
s3:GetBucketLocation *Read Only*
s3:GetBucketTagging *Read Only*
s3:ListAllMyBuckets *Read Only*
s3:ListBucketMultipartUploads *Read Only*

s3:ListMultipartUploadParts *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
s3:AbortMultipartUpload *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS S3 Usage Type Rule-Based Dimension 0.1.1

**Flexera Required Permissions:**
billing_center_viewer *Read Only*
observer *Read Only*
rule_based_dimensions_manager *Read Only*

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## AWS Savings Plan Recommendations 3.3.4

**AWS Required Permissions:**
ce:GetSavingsPlansPurchaseRecommendation *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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## AWS Savings Plan Utilization 4.0.3

**AWS Required Permissions:**
ce:GetSavingsPlansUtilization *Read Only*
savingsplans:DescribeSavingsPlans *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Savings Realized From Rate Reduction Purchases 4.0.2

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Schedule Instance 8.0.1

**AWS Required Permissions:**
ec2:CreateTags *Write*
ec2:DeleteTags *Write*
ec2:DescribeInstances *Read Only*

ec2:DescribeRegions *Read Only*
ec2:StartInstances *Write*
ec2:StopInstances *Write*
ec2:TerminateInstances *Write*
kms:CreateGrant *Write*
kms:Decrypt *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Scheduled EC2 Events 4.0.3

**AWS Required Permissions:**
ec2:DescribeInstanceStatus *Read Only*
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Superseded EBS Volumes 6.3.7

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
ec2:DescribeVolumes *Read Only*
pricing:GetProducts *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:ModifyVolume *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Superseded EC2 Instances 2.4.1

**AWS Required Permissions:**
ec2:DescribeInstances *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:DescribeInstanceStatus *Write*
ec2:ModifyInstanceAttribute *Write*
ec2:StartInstances *Write*

ec2:StopInstances *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Tag Cardinality Report 3.1.5

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
organizations:ListAccounts *Read Only*
organizations:ListTagsForResource *Read Only*
tag:GetResources *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Unencrypted EBS Volumes 5.0.3

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
ec2:DescribeVolumes *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Unencrypted RDS Instances 4.1.1

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
rds:DescribeDBInstances *Read Only*
rds:ListTagsForResource *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
rds:DeleteDBInstance *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Untagged Resources 5.4.1

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*
tag:GetResources *Read Only*

**AWS Optional Permissions:**
organizations:TagResource *Write*
tag:TagResources *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

# AWS Unused Application Load Balancers 0.2.4

### AWS Required Permissions:
ec2:DescribeRegions *Read Only*
elasticloadbalancing:DescribeListeners *Read Only*
elasticloadbalancing:DescribeLoadBalancers *Read Only*
elasticloadbalancing:DescribeTags *Read Only*
elasticloadbalancing:DescribeTargetGroups *Read Only*
elasticloadbalancing:DescribeTargetHealth *Read Only*
sts:GetCallerIdentity *Read Only*

### AWS Optional Permissions:
elasticloadbalancing:DeleteLoadBalancer *Write*

### Flexera Required Permissions:
billing_center_viewer *Read Only*

---

# AWS Unused Classic Load Balancers 6.4.4

### AWS Required Permissions:
ec2:DescribeRegions *Read Only*
elasticloadbalancing:DescribeInstanceHealth *Read Only*
elasticloadbalancing:DescribeLoadBalancers *Read Only*
elasticloadbalancing:DescribeTags *Read Only*
sts:GetCallerIdentity *Read Only*

### AWS Optional Permissions:
elasticloadbalancing:DeleteLoadBalancer *Write*

### Flexera Required Permissions:
billing_center_viewer *Read Only*

---

# AWS Unused ECS Clusters 4.0.3

### AWS Required Permissions:
ec2:DescribeRegions *Read Only*
ecs:DescribeClusters *Read Only*
ecs:ListClusters *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ecs:DeleteCluster *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Unused IAM Credentials 3.0.4

**AWS Required Permissions:**
iam:GenerateCredentialReport *Read Only*
iam:GetCredentialReport *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Unused IP Addresses 9.2.4

**AWS Required Permissions:**
cloudtrail:LookupEvents *Read Only*
ec2:DescribeAddresses *Read Only*
ec2:DescribeRegions *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
ec2:ReleaseAddress *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Unused Network Load Balancers 0.2.4

**AWS Required Permissions:**
ec2:DescribeRegions *Read Only*
elasticloadbalancing:DescribeListeners *Read Only*
elasticloadbalancing:DescribeLoadBalancers *Read Only*
elasticloadbalancing:DescribeTags *Read Only*
elasticloadbalancing:DescribeTargetGroups *Read Only*
elasticloadbalancing:DescribeTargetHealth *Read Only*
sts:GetCallerIdentity *Read Only*

**AWS Optional Permissions:**
elasticloadbalancing:DeleteLoadBalancer *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

# AWS Unused Volumes 8.3.5

**AWS Required Permissions:**
cloudwatch:GetMetricData *Read Only*
cloudwatch:GetMetricStatistics *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeSnapshots *Read Only*
ec2:DescribeVolumes *Read Only*

**AWS Optional Permissions:**
ec2:CreateSnapshot *Write*
ec2:CreateTags *Write*
ec2:DeleteVolume *Write*
ec2:DetachVolume *Write*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

# AWS Usage Forecast - Instance Time Used 1.1.1

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

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# AWS Usage Forecast - Number of Instance Hours Used 3.3.6

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

# AWS Usage Forecast - Number of Instance vCPUs Used 3.3.6

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

# AWS Usage Report - Instance Time Used 1.1.1

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

# AWS Usage Report - Number of Instance Hours Used 4.1.6

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS Usage Report - Number of Instance vCPUs Used 4.1.6

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## AWS VPCs Without FlowLogs Enabled 4.0.3

**AWS Required Permissions:**
ec2:DescribeFlowLogs *Read Only*
ec2:DescribeRegions *Read Only*
ec2:DescribeVpcs *Read Only*
sts:GetCallerIdentity *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*

---

## Common Bill Ingestion from AWS S3 Object Storage 0.2.1

**AWS Optional Permissions:**
s3:GetObject *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*
csm_bill_upload_admin *Read Only*

---

## Common Bill Ingestion from AWS S3 Object Storage (Iterating) 0.1.0

**AWS Optional Permissions:**
s3:GetObject *Read Only*
s3:ListBucket *Read Only*

**Flexera Required Permissions:**
billing_center_viewer *Read Only*
csm_bill_upload_admin *Read Only*

---