AWS Well-Architected Tool

# AWS Well-Architected Tool CruddurApplication - AWS Well-Architected Framework Report

AWS Account ID: 550506132895

# AWS Well-Architected Tool Report

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# Workload properties

**Workload name**
CruddurApplication

**ARN**
arn:aws:wellarchitected:us-east-1:550506132895:workload/5b13a30ff2960d46c80979d056174438

**Description**
Cruddur is an ephemeral social media application for posting images that temporarily remain relevant at the instance of moment.

**Review owner**
Igor Gonevski

**Industry type**
Other

**Industry**
Social Media

**Environment**
Pre-production

**AWS Regions**
US East (N. Virginia)

**Non-AWS regions**
-

**Account IDs**
-

**Architectural design**

-

## Application

-

# Lens overview

## Questions answered

6/58

## Version

AWS Well-Architected Framework, 31st Mar 2022

| Pillar | Questions answered |
|---|---|
| Operational Excellence | 1/11 |
| Security | 1/10 |
| Reliability | 1/13 |
| Performance Efficiency | 1/8 |
| Cost Optimization | 1/10 |
| Sustainability | 1/6 |

## Lens notes

-

# Improvement plan

### Improvement item summary

High risk: 0

Medium risk: 0

| Pillar | High risk | Medium risk |
|---|---|---|
| Operational Excellence | 0 | 0 |
| Security | 0 | 0 |
| Reliability | 0 | 0 |
| Performance Efficiency | 0 | 0 |
| Cost Optimization | 0 | 0 |
| Sustainability | 0 | 0 |

# High risk

| Operational Excellence |
|---|
| No improvements identified |

| Security |
|---|
| No improvements identified |

| Reliability |
|---|
| No improvements identified |

| Performance Efficiency |
| --- |
| No improvements identified |

| Cost Optimization |
| --- |
| No improvements identified |

| Sustainability |
| --- |
| No improvements identified |

# Medium risk

| Operational Excellence |
| --- |
| No improvements identified |

| Security |
| --- |
| No improvements identified |

| Reliability |
| --- |
| No improvements identified |

| Performance Efficiency |
| --- |
| No improvements identified |

| Cost Optimization |
| --- |
| No improvements identified |

| Sustainability |
| --- |
| No improvements identified |

# Lens details

## Operational Excellence

### Questions answered

1/11

### Question status

- High risk: 0
- Medium risk: 0
- No improvements identified: 1
- Not Applicable: 0
- Unanswered: 10

### Pillar notes

-

## 1. How do you determine what your priorities are?

No improvements identified

**Selected choice(s)**

- Evaluate external customer needs
- Evaluate internal customer needs
- Evaluate governance requirements
- Evaluate compliance requirements
- Evaluate threat landscape
- Evaluate tradeoffs
- Manage benefits and risks

**Not selected choice(s)**

- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

All instances of internal and external factors need to be accounted for, which will include the series of sources listed in the checklist above that the team will remain vigilant in working through the building of Cruddur.

**Improvement plan**

No risk detected for this question. No action needed.

## 2. How do you structure your organization to support your business outcomes?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Resources have identified owners
- Processes and procedures have identified owners
- Operations activities have identified owners responsible for their performance
- Team members know what they are responsible for
- Mechanisms exist to identify responsibility and ownership
- Mechanisms exist to request additions, changes, and exceptions
- Responsibilities between teams are predefined or negotiated
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 3. How does your organizational culture support your business outcomes?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Executive Sponsorship
- Team members are empowered to take action when outcomes are at risk
- Escalation is encouraged
- Communications are timely, clear, and actionable
- Experimentation is encouraged
- Team members are enabled and encouraged to maintain and grow their skill sets
- Resource teams appropriately
- Diverse opinions are encouraged and sought within and across teams
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 4. How do you design your workload so that you can understand its state?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Implement application telemetry
- Implement and configure workload telemetry
- Implement user activity telemetry
- Implement dependency telemetry
- Implement transaction traceability
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 5. How do you reduce defects, ease remediation, and improve flow into production?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use version control
- Test and validate changes
- Use configuration management systems
- Use build and deployment management systems
- Perform patch management
- Share design standards
- Implement practices to improve code quality
- Use multiple environments
- Make frequent, small, reversible changes
- Fully automate integration and deployment
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 6. How do you mitigate deployment risks?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Plan for unsuccessful changes
- Test and validate changes
- Use deployment management systems
- Test using limited deployments
- Deploy using parallel environments
- Deploy frequent, small, reversible changes
- Fully automate integration and deployment
- Automate testing and rollback
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 7. How do you know that you are ready to support a workload?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Ensure personnel capability
- Ensure consistent review of operational readiness
- Use runbooks to perform procedures
- Use playbooks to investigate issues
- Make informed decisions to deploy systems and changes
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 8. How do you understand the health of your workload?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify key performance indicators
- Define workload metrics
- Collect and analyze workload metrics
- Establish workload metrics baselines
- Learn expected patterns of activity for workload
- Alert when workload outcomes are at risk
- Alert when workload anomalies are detected
- Validate the achievement of outcomes and the effectiveness of KPIs and metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 9. How do you understand the health of your operations?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify key performance indicators
- Define operations metrics
- Collect and analyze operations metrics
- Establish operations metrics baselines
- Learn the expected patterns of activity for operations
- Alert when operations outcomes are at risk
- Alert when operations anomalies are detected
- Validate the achievement of outcomes and the effectiveness of KPIs and metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 10. How do you manage workload and operations events?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use processes for event, incident, and problem management
- Have a process per alert
- Prioritize operational events based on business impact
- Define escalation paths
- Enable push notifications
- Communicate status through dashboards
- Automate responses to events
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 11. How do you evolve operations?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Have a process for continuous improvement
- Perform post-incident analysis
- Implement feedback loops
- Perform Knowledge Management
- Define drivers for improvement
- Validate insights
- Perform operations metrics reviews
- Document and share lessons learned
- Allocate time to make improvements
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

# Security

## Questions answered

1/10

## Question status

- High risk: 0
- Medium risk: 0
- No improvements identified: 1
- Not Applicable: 0
- Unanswered: 9

## Pillar notes

-

## 1. How do you securely operate your workload?

No improvements identified

**Selected choice(s)**

- Separate workloads using accounts
- Secure AWS account
- Identify and validate control objectives
- Keep up to date with security threats
- Keep up to date with security recommendations
- Automate testing and validation of security controls in pipelines
- Identify and prioritize risks using a threat model
- Evaluate and implement new security services and features regularly

**Not selected choice(s)**

- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

The above practices listed in the checklist will be crucial in order to uphold the security of the workload of Cruddur in addition to leveraging AWS security resources and IAM best practices, which comprise continuous monitoring, resource and access allocation and isolation, as well as central management of the resources comprising the workload when use both by internal and external users.

**Improvement plan**

No risk detected for this question. No action needed.

## 2. How do you manage identities for people and machines?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use strong sign-in mechanisms
- Use temporary credentials
- Store and use secrets securely
- Rely on a centralized identity provider
- Audit and rotate credentials periodically
- Leverage user groups and attributes
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 3. How do you manage permissions for people and machines?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Define access requirements
- Grant least privilege access
- Establish emergency access process
- Reduce permissions continuously
- Define permission guardrails for your organization
- Manage access based on life cycle
- Analyze public and cross account access
- Share resources securely
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 4. How do you detect and investigate security events?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Configure service and application logging
- Analyze logs, findings, and metrics centrally
- Automate response to events
- Implement actionable security events
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 5. How do you protect your network resources?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Create network layers
- Control traffic at all layers
- Automate network protection
- Implement inspection and protection
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 6. How do you protect your compute resources?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Perform vulnerability management
- Reduce attack surface
- Implement managed services
- Automate compute protection
- Enable people to perform actions at a distance
- Validate software integrity
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 7. How do you classify your data?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify the data within your workload
- Define data protection controls
- Automate identification and classification
- Define data lifecycle management
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 8. How do you protect your data at rest?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Implement secure key management
- Enforce encryption at rest
- Automate data at rest protection
- Enforce access control
- Use mechanisms to keep people away from data
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 9. How do you protect your data in transit?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Implement secure key and certificate management
- Enforce encryption in transit
- Automate detection of unintended data access
- Authenticate network communications
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 10. How do you anticipate, respond to, and recover from incidents?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify key personnel and external resources
- Develop incident management plans
- Prepare forensic capabilities
- Automate containment capability
- Pre-provision access
- Pre-deploy tools
- Run game days
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

# Reliability

## Questions answered

1/13

## Question status

- High risk: 0
- Medium risk: 0
- No improvements identified: 1
- Not Applicable: 0
- Unanswered: 12

## Pillar notes

-

## 1. How do you manage service quotas and constraints?

No improvements identified

**Selected choice(s)**

- Aware of service quotas and constraints
- Manage service quotas across accounts and regions
- Accommodate fixed service quotas and constraints through architecture
- Monitor and manage quotas
- Automate quota management
- Ensure that a sufficient gap exists between the current quotas and the maximum usage to accommodate failover

**Not selected choice(s)**

- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

Close monitoring of resource allocation will be required to manage the constraint of imposed limits by use of the Service Quotas Console and finding ways to automate the management of requesting service quota limits across all organizational accounts dedicated to the Cruddur workload.

**Improvement plan**

No risk detected for this question. No action needed.

## 2. How do you plan your network topology?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use highly available network connectivity for your workload public endpoints
- Provision redundant connectivity between private networks in the cloud and on-premises environments
- Ensure IP subnet allocation accounts for expansion and availability
- Prefer hub-and-spoke topologies over many-to-many mesh
- Enforce non-overlapping private IP address ranges in all private address spaces where they are connected
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 3. How do you design your workload service architecture?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Choose how to segment your workload
- Build services focused on specific business domains and functionality
- Provide service contracts per API
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 4. How do you design interactions in a distributed system to prevent failures?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify which kind of distributed system is required
- Implement loosely coupled dependencies
- Do constant work
- Make all responses idempotent
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 5. How do you design interactions in a distributed system to mitigate or withstand failures?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Implement graceful degradation to transform applicable hard dependencies into soft dependencies
- Throttle requests
- Control and limit retry calls
- Fail fast and limit queues
- Set client timeouts
- Make services stateless where possible
- Implement emergency levers
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 6. How do you monitor workload resources?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Monitor all components for the workload (Generation)
- Define and calculate metrics (Aggregation)
- Send notifications (Real-time processing and alarming)
- Automate responses (Real-time processing and alarming)
- Analytics
- Conduct reviews regularly
- Monitor end-to-end tracing of requests through your system
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 7. How do you design your workload to adapt to changes in demand?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use automation when obtaining or scaling resources
- Obtain resources upon detection of impairment to a workload
- Obtain resources upon detection that more resources are needed for a workload
- Load test your workload
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 8. How do you implement change?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use runbooks for standard activities such as deployment
- Integrate functional testing as part of your deployment
- Integrate resiliency testing as part of your deployment
- Deploy using immutable infrastructure
- Deploy changes with automation
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 9. How do you back up data?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify and back up all data that needs to be backed up, or reproduce the data from sources
- Secure and encrypt backups
- Perform data backup automatically
- Perform periodic recovery of the data to verify backup integrity and processes
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 10. How do you use fault isolation to protect your workload?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Deploy the workload to multiple locations
- Select the appropriate locations for your multi-location deployment
- Automate recovery for components constrained to a single location
- Use bulkhead architectures to limit scope of impact
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 11. How do you design your workload to withstand component failures?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Monitor all components of the workload to detect failures
- Fail over to healthy resources
- Automate healing on all layers
- Rely on the data plane and not the control plane during recovery
- Use static stability to prevent bimodal behavior
- Send notifications when events impact availability
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 12. How do you test reliability?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use playbooks to investigate failures
- Perform post-incident analysis
- Test functional requirements
- Test scaling and performance requirements
- Test resiliency using chaos engineering
- Conduct game days regularly
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 13. How do you plan for disaster recovery (DR)?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Define recovery objectives for downtime and data loss
- Use defined recovery strategies to meet the recovery objectives
- Test disaster recovery implementation to validate the implementation
- Manage configuration drift at the DR site or Region
- Automate recovery
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

# Performance Efficiency

## Questions answered

1/8

## Question status

- High risk: 0
- Medium risk: 0
- No improvements identified: 1
- Not Applicable: 0
- Unanswered: 7

## Pillar notes

-

## 1. How do you select the best performing architecture?

No improvements identified

**Selected choice(s)**

- Understand the available services and resources
- Define a process for architectural choices
- Factor cost requirements into decisions
- Use policies or reference architectures
- Use guidance from your cloud provider or an appropriate partner
- Benchmark existing workloads
- Load test your workload

**Not selected choice(s)**

- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

Knowledge of the performance requirements of the desired workload for Cruddur as well as knowledge of the catalog of service tiers that AWS provides for various compute, storage, etc. resources will be crucial to the deployment of the most optimal selection of resources that need to be deployed while being aware of cost, for which the pricing calculator and usage alarms and logging will be important to meet this objective.

**Improvement plan**

No risk detected for this question. No action needed.

## 2. How do you select your compute solution?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Evaluate the available compute options
- Understand the available compute configuration options
- Collect compute-related metrics
- Determine the required configuration by right-sizing
- Use the available elasticity of resources
- Re-evaluate compute needs based on metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 3. How do you select your storage solution?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Understand storage characteristics and requirements
- Evaluate available configuration options
- Make decisions based on access patterns and metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 4. How do you select your database solution?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Understand data characteristics
- Evaluate the available options
- Collect and record database performance metrics
- Choose data storage based on access patterns
- Optimize data storage based on access patterns and metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 5. How do you configure your networking solution?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Understand how networking impacts performance
- Evaluate available networking features
- Choose appropriately sized dedicated connectivity or VPN for hybrid workloads
- Leverage load-balancing and encryption offloading
- Choose network protocols to improve performance
- Choose your workload's location based on network requirements
- Optimize network configuration based on metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

---

**Improvement plan**

Answer the question to view the improvement plan.

## 6. How do you evolve your workload to take advantage of new releases?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Stay up-to-date on new resources and services
- Define a process to improve workload performance
- Evolve workload performance over time
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 7. How do you monitor your resources to ensure they are performing?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Record performance-related metrics
- Analyze metrics when events or incidents occur
- Establish Key Performance Indicators (KPIs) to measure workload performance
- Use monitoring to generate alarm-based notifications
- Review metrics at regular intervals
- Monitor and alarm proactively
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 8. How do you use tradeoffs to improve performance?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Understand the areas where performance is most critical
- Learn about design patterns and services
- Identify how tradeoffs impact customers and efficiency
- Measure the impact of performance improvements
- Use various performance-related strategies
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

# Cost Optimization

## Questions answered

1/10

## Question status

- High risk: 0
- Medium risk: 0
- No improvements identified: 1
- Not Applicable: 0
- Unanswered: 9

## Pillar notes

-

## 1. How do you implement cloud financial management?

No improvements identified

**Selected choice(s)**

- Establish a cost optimization function
- Establish a partnership between finance and technology
- Establish cloud budgets and forecasts
- Implement cost awareness in your organizational processes
- Report and notify on cost optimization
- Monitor cost proactively
- Keep up to date with new service releases

**Not selected choice(s)**

- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

The implementation of a cloud business model relies on the organization's efforts of both its IT and Business partners in reaching a consensus on the spending and allocation of resources towards the Cruddur project. This will involve actively monitoring and logging the cost and usage of resources as well as forecasting spending, which will be accomplished using Cost Management Tools provided by AWS as well as keeping a compendium of budgeting and spending with the aim of finding the most optimal spending throughout the project's lifecycle.

## 1. How do you implement cloud financial management?

**Improvement plan**

No risk detected for this question. No action needed.

## 2. How do you govern usage?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Develop policies based on your organization requirements
- Implement goals and targets
- Implement an account structure
- Implement groups and roles
- Implement cost controls
- Track project lifecycle
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 3. How do you monitor usage and cost?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Configure detailed information sources
- Identify cost attribution categories
- Establish organization metrics
- Configure billing and cost management tools
- Add organization information to cost and usage
- Allocate costs based on workload metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 4. How do you decommission resources?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Track resources over their life time
- Implement a decommissioning process
- Decommission resources
- Decommission resources automatically
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 5. How do you evaluate cost when you select services?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Identify organization requirements for cost
- Analyze all components of this workload
- Perform a thorough analysis of each component
- Select software with cost effective licensing
- Select components of this workload to optimize cost in line with organization priorities
- Perform cost analysis for different usage over time
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 6. How do you meet cost targets when you select resource type, size and number?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Perform cost modeling
- Select resource type, size, and number based on data
- Select resource type, size, and number automatically based on metrics
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 7. How do you use pricing models to reduce cost?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Perform pricing model analysis
- Implement regions based on cost
- Select third party agreements with cost efficient terms
- Implement pricing models for all components of this workload
- Perform pricing model analysis at the master account level
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 8. How do you plan for data transfer charges?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Perform data transfer modeling
- Select components to optimize data transfer cost
- Implement services to reduce data transfer costs
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 9. How do you manage demand, and supply resources?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Perform an analysis on the workload demand
- Implement a buffer or throttle to manage demand
- Supply resources dynamically
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 10. How do you evaluate new services?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Develop a workload review process
- Review and analyze this workload regularly
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

# Sustainability

## Questions answered

1/6

## Question status

- High risk: 0
- Medium risk: 0
- No improvements identified: 1
- Not Applicable: 0
- Unanswered: 5

## Pillar notes

-

## 1. How do you select Regions to support your sustainability goals?

No improvements identified

**Selected choice(s)**

- Choose Regions near Amazon renewable energy projects and Regions where the grid has a published carbon intensity that is lower than other locations (or Regions).

**Not selected choice(s)**

- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

The selection of distinct regions that benefit our cost and corresponding usage of resources will allow for reaching the objective of sustainability as well as selecting regions that are dedicated towards the sustainability objective of AWS will allow for making this an accomplishment.

**Improvement plan**

No risk detected for this question. No action needed.

## 2. How do you take advantage of user behavior patterns to support your sustainability goals?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Scale infrastructure with user load
- Align SLAs with sustainability goals
- Stop the creation and maintenance of unused assets
- Optimize geographic placement of workloads for user locations
- Optimize team member resources for activities performed
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 3. How do you take advantage of software and architecture patterns to support your sustainability goals?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Optimize software and architecture for asynchronous and scheduled jobs
- Remove or refactor workload components with low or no use
- Optimize areas of code that consume the most time or resources
- Optimize impact on customer devices and equipment
- Use software patterns and architectures that best support data access and storage patterns
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 4. How do you take advantage of data access and usage patterns to support your sustainability goals?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Implement a data classification policy
- Use technologies that support data access and storage patterns
- Use lifecycle policies to delete unnecessary data
- Minimize over-provisioning in block storage
- Remove unneeded or redundant data
- Use shared file systems or object storage to access common data
- Minimize data movement across networks
- Back up data only when difficult to recreate
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 5. How do your hardware management and usage practices support your sustainability goals?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Use the minimum amount of hardware to meet your needs
- Use instance types with the least impact
- Use managed services
- Optimize your use of GPUs
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.

## 6. How do your development and deployment processes support your sustainability goals?

Unanswered

**Selected choice(s)**

-

**Not selected choice(s)**

- Adopt methods that can rapidly introduce sustainability improvements
- Keep your workload up to date
- Increase utilization of build environments
- Use managed device farms for testing
- None of these

**Best Practices marked as Not Applicable**

-

**Notes**

-

**Improvement plan**

Answer the question to view the improvement plan.