



AWS Well-Architected Tool

AWS Well-Architected Tool Cruddur - AWS Well-Architected Framework Report

AWS Account ID: 774490141131

AWS Well-Architected Tool Report

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Security	23
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Workload properties

Workload name

Cruddur

ARN

arn:aws:wellarchitected:us-east-1:774490141131:workload/57eeb04c0c0ddd0cfda498bf5229f34e

Description

A microblogging site created in AWS for the bootcamp.

Review owner

Andrew Brown

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

58/58

Version

AWS Well-Architected Framework, 31st Mar 2022

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

Lens notes

-

Improvement plan

Improvement item summary

High risk: 7

Medium risk: 13

Pillar	High risk	Medium risk
Operational Excellence	1	0
Security	1	2
Reliability	4	1
Performance Efficiency	0	2
Cost Optimization	1	4
Sustainability	0	4

High risk

Operational Excellence

- [OPS 3.How does your organizational culture support your business outcomes?](#)

Security

- [SEC 9.How do you protect your data in transit?](#)

Reliability

- [REL 6.How do you monitor workload resources?](#)
- [REL 12.How do you test reliability?](#)
- [REL 2.How do you plan your network topology?](#)
- [REL 5.How do you design interactions in a distributed system to mitigate or withstand failures?](#)

Performance Efficiency

No improvements identified

Cost Optimization

- [COST 8.How do you plan for data transfer charges?](#)

Sustainability

No improvements identified

Medium risk

Operational Excellence

No improvements identified

Security

- SEC 6.How do you protect your compute resources?
- SEC 10.How do you anticipate, respond to, and recover from incidents?

Reliability

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

Performance Efficiency

- PERF 1.How do you select the best performing architecture?
- PERF 7.How do you monitor your resources to ensure they are performing?

Cost Optimization

- COST 1.How do you implement cloud financial management?
- COST 5.How do you evaluate cost when you select services?
- COST 6.How do you meet cost targets when you select resource type, size and number?
- COST 7.How do you use pricing models to reduce cost?

Sustainability

- SUS 2.How do you take advantage of user behavior patterns to support your sustainability goals?
- SUS 3.How do you take advantage of software and architecture patterns to support your sustainability goals?
- SUS 4.How do you take advantage of data access and usage patterns to support your sustainability goals?
- SUS 6.How do your development and deployment processes support your sustainability goals?

Lens details

Operational Excellence

Questions answered

11/11

Question status

- ⊗ High risk: 1
- ⚠ Medium risk: 0
- ✓ No improvements identified: 10
- ⊖ Not Applicable: 0
- 🕒 Unanswered: 0

Pillar notes

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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

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

-

Notes

-

Improvement plan

No risk detected for this question. No action needed.

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

⊗ High risk

Selected choice(s)

- 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

Not selected choice(s)

- Executive Sponsorship
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Executive Sponsorship](#)

[Ask an expert](#)

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

✔ No improvements identified

Selected choice(s)

- Implement application telemetry
- Implement and configure workload telemetry
- Implement user activity telemetry
- Implement dependency telemetry
- Implement transaction traceability

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

-

Notes

-

Improvement plan

No risk detected for this question. No action needed.

6. How do you mitigate deployment risks?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- Validate the achievement of outcomes and the effectiveness of KPIs and metrics
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

10. How do you manage workload and operations events?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

11. How do you evolve operations?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

Security

Questions answered

10/10

Question status

- ⊗ High risk: 1
- ⚠ Medium risk: 2
- ✓ No improvements identified: 7
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

Pillar notes

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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

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

-

Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

4. How do you detect and investigate security events?

✔ No improvements identified

Selected choice(s)

- Configure service and application logging
- Analyze logs, findings, and metrics centrally
- Automate response to events
- Implement actionable security events

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

5. How do you protect your network resources?

✔ No improvements identified

Selected choice(s)

- Create network layers
- Control traffic at all layers
- Automate network protection
- Implement inspection and protection

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

No risk detected for this question. No action needed.

6. How do you protect your compute resources?

 Medium risk

Selected choice(s)

- Perform vulnerability management
- Reduce attack surface
- Implement managed services
- Automate compute protection
- Validate software integrity

Not selected choice(s)

- Enable people to perform actions at a distance
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Enable people to perform actions at a distance](#)

[Ask an expert](#)

7. How do you classify your data?

✔ No improvements identified

Selected choice(s)

- Identify the data within your workload
- Define data protection controls
- Automate identification and classification
- Define data lifecycle management

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

No risk detected for this question. No action needed.

8. How do you protect your data at rest?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

9. How do you protect your data in transit?

⊗ High risk

Selected choice(s)

- Enforce encryption in transit

Not selected choice(s)

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

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Implement secure key and certificate management](#)
- [Automate detection of unintended data access](#)
- [Authenticate network communications](#)

[Ask an expert](#)

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

 Medium risk

Selected choice(s)

- Identify key personnel and external resources
- Develop incident management plans
- Prepare forensic capabilities
- Automate containment capability
- Pre-provision access

Not selected choice(s)

- Pre-deploy tools
- Run game days
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Pre-deploy tools](#)
- [Run game days](#)

[Ask an expert](#)

Reliability

Questions answered

13/13

Question status

- ⊗ High risk: 4
- ⚠ Medium risk: 1
- ✓ No improvements identified: 8
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

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

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Notes

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Improvement plan

No risk detected for this question. No action needed.

2. How do you plan your network topology?

⊗ High risk

Selected choice(s)

- Use highly available network connectivity for your workload public endpoints
- 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

Not selected choice(s)

- Provision redundant connectivity between private networks in the cloud and on-premises environments
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Provision redundant connectivity between private networks in the cloud and on-premises environments](#)

[Ask an expert](#)

3. How do you design your workload service architecture?

✔ No improvements identified

Selected choice(s)

- Choose how to segment your workload
- Build services focused on specific business domains and functionality
- Provide service contracts per API

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

Selected choice(s)

- Identify which kind of distributed system is required
- Implement loosely coupled dependencies
- Make all responses idempotent

Not selected choice(s)

- Do constant work
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

No risk detected for this question. No action needed.

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

⊗ High risk

Selected choice(s)

- Throttle requests
- Control and limit retry calls
- Fail fast and limit queues
- Set client timeouts
- Make services stateless where possible
- Implement emergency levers

Not selected choice(s)

- Implement graceful degradation to transform applicable hard dependencies into soft dependencies
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Implement graceful degradation to transform applicable hard dependencies into soft dependencies](#)

[Ask an expert](#)

6. How do you monitor workload resources?

⊗ High risk

Selected choice(s)

- Send notifications (Real-time processing and alarming)
- Automate responses (Real-time processing and alarming)
- Analytics
- Conduct reviews regularly

Not selected choice(s)

- Monitor all components for the workload (Generation)
- Define and calculate metrics (Aggregation)
- Monitor end-to-end tracing of requests through your system
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Monitor all components for the workload \(Generation\)](#)
- [Define and calculate metrics \(Aggregation\)](#)
- [Monitor end-to-end tracing of requests through your system](#)

[Ask an expert](#)

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

8. How do you implement change?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

9. How do you back up data?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

12. How do you test reliability?

⊗ High risk

Selected choice(s)

- Perform post-incident analysis
- Test functional requirements
- Test scaling and performance requirements
- Test resiliency using chaos engineering

Not selected choice(s)

- Use playbooks to investigate failures
- Conduct game days regularly
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Use playbooks to investigate failures](#)
- [Conduct game days regularly](#)

[Ask an expert](#)

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

 Medium risk

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

Not selected choice(s)

- Manage configuration drift at the DR site or Region
- Automate recovery
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Manage configuration drift at the DR site or Region](#)
- [Automate recovery](#)

[Ask an expert](#)

Performance Efficiency

Questions answered

8/8

Question status

- ⊗ High risk: 0
- ⚠ Medium risk: 2
- ✓ No improvements identified: 6
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

Pillar notes

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1. How do you select the best performing architecture?

 Medium risk

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

Not selected choice(s)

- Load test your workload
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Load test your workload](#)

[Ask an expert](#)

2. How do you select your compute solution?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

3. How do you select your storage solution?

✔ No improvements identified

Selected choice(s)

- Understand storage characteristics and requirements
- Evaluate available configuration options
- Make decisions based on access patterns and metrics

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

4. How do you select your database solution?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

5. How do you configure your networking solution?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

✔ No improvements identified

Selected choice(s)

- Stay up-to-date on new resources and services
- Define a process to improve workload performance
- Evolve workload performance over time

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

 Medium risk

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

Not selected choice(s)

- Review metrics at regular intervals
- Monitor and alarm proactively
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Review metrics at regular intervals](#)
- [Monitor and alarm proactively](#)

[Ask an expert](#)

8. How do you use tradeoffs to improve performance?

✔ No improvements identified

Selected choice(s)

- Understand the areas where performance is most critical
- Learn about design patterns and services
- Identify how tradeoffs impact customers and efficiency
- Use various performance-related strategies

Not selected choice(s)

- Measure the impact of performance improvements
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

Cost Optimization

Questions answered

10/10

Question status

- ⊗ High risk: 1
- ⚠ Medium risk: 4
- ✓ No improvements identified: 5
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

Pillar notes

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1. How do you implement cloud financial management?

 Medium risk

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
- Keep up to date with new service releases

Not selected choice(s)

- Monitor cost proactively
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Monitor cost proactively](#)

[Ask an expert](#)

2. How do you govern usage?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

3. How do you monitor usage and cost?

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

4. How do you decommission resources?

✔ No improvements identified

Selected choice(s)

- Track resources over their life time
- Implement a decommissioning process
- Decommission resources
- Decommission resources automatically

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

 Medium risk

Selected choice(s)

- Identify organization requirements for cost
- Analyze all components of this workload
- 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

Not selected choice(s)

- Perform a thorough analysis of each component
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Perform a thorough analysis of each component](#)

[Ask an expert](#)

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

 Medium risk

Selected choice(s)

- Perform cost modeling
- Select resource type, size, and number based on data

Not selected choice(s)

- Select resource type, size, and number automatically based on metrics
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Select resource type, size, and number automatically based on metrics](#)

[Ask an expert](#)

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

 Medium risk

Selected choice(s)

- Perform pricing model analysis
- Select third party agreements with cost efficient terms
- Perform pricing model analysis at the master account level

Not selected choice(s)

- Implement regions based on cost
- Implement pricing models for all components of this workload
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Implement regions based on cost](#)
- [Implement pricing models for all components of this workload](#)

[Ask an expert](#)

8. How do you plan for data transfer charges?

⊗ High risk

Selected choice(s)

- Select components to optimize data transfer cost
- Implement services to reduce data transfer costs

Not selected choice(s)

- Perform data transfer modeling
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Perform data transfer modeling](#)

[Ask an expert](#)

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

✔ No improvements identified

Selected choice(s)

- Perform an analysis on the workload demand
- Implement a buffer or throttle to manage demand
- Supply resources dynamically

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

10. How do you evaluate new services?

✔ No improvements identified

Selected choice(s)

- Develop a workload review process
- Review and analyze this workload regularly

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

Sustainability

Questions answered

6/6

Question status

- ⊗ High risk: 0
- ⚠ Medium risk: 4
- ✓ No improvements identified: 2
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

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

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Notes

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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?

 Medium risk

Selected choice(s)

- Scale infrastructure with user load
- Align SLAs with sustainability goals
- Optimize team member resources for activities performed

Not selected choice(s)

- Stop the creation and maintenance of unused assets
- Optimize geographic placement of workloads for user locations
- None of these

Best Practices marked as Not Applicable

-

Notes

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Improvement plan

- [Stop the creation and maintenance of unused assets](#)
- [Optimize geographic placement of workloads for user locations](#)

[Ask an expert](#)

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

 Medium risk

Selected choice(s)

- Optimize software and architecture for asynchronous and scheduled jobs
- Optimize areas of code that consume the most time or resources
- Optimize impact on customer devices and equipment

Not selected choice(s)

- Remove or refactor workload components with low or no use
- Use software patterns and architectures that best support data access and storage patterns
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Remove or refactor workload components with low or no use](#)
- [Use software patterns and architectures that best support data access and storage patterns](#)

[Ask an expert](#)

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

 Medium risk

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

Not selected choice(s)

- Back up data only when difficult to recreate
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Back up data only when difficult to recreate](#)

[Ask an expert](#)

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

✔ No improvements identified

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

Not selected choice(s)

- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

No risk detected for this question. No action needed.

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

 Medium risk

Selected choice(s)

- Adopt methods that can rapidly introduce sustainability improvements
- Keep your workload up to date
- Increase utilization of build environments

Not selected choice(s)

- Use managed device farms for testing
- None of these

Best Practices marked as Not Applicable

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Notes

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Improvement plan

- [Use managed device farms for testing](#)

[Ask an expert](#)