



AWS Well-Architected Tool

# **AWS Well-Architected Tool TME - Odoo - AWS Well-Architected Framework - Odoo - Initial Assessment Report**

AWS Account ID: 281795875463

# AWS Well-Architected Tool Report

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# Milestone properties

**Milestone name**

Odoo - Initial Assessment

**Date saved**

Sep 19, 2023 1:55 PM UTC

**Workload name**

TME - Odoo

**ARN**

arn:aws:wellarchitected:ap-southeast-1:281795875463:workload/89d54fa6d37b3416b7ce8fc7cfba3e58

**Description**

TME - Odoo

**Review owner**

junaid.ahmed@init-global.com

**Industry type**

-

**Industry**

-

**Environment**

Production

**AWS Regions**

Asia Pacific (Singapore)

**Non-AWS regions**

-

## Account IDs

- 

## Architectural design

- 

## Application

-

# Lens overview

## Questions answered

36/60

## Version

AWS Well-Architected Framework, 10th Apr 2023

Pillar	Questions answered
Operational Excellence	0/11
Security	11/11
Reliability	0/13
Performance Efficiency	8/8
Cost Optimization	11/11
Sustainability	6/6

## Lens notes

-

# Improvement plan

## Improvement item summary

High risk: 17

Medium risk: 12

Pillar	High risk	Medium risk
Operational Excellence	0	0
Security	4	6
Reliability	0	0
Performance Efficiency	5	1
Cost Optimization	8	1
Sustainability	0	4

## High risk

### Operational Excellence

No improvements identified

### Security

- [SEC 1.How do you securely operate your workload?](#)
- [SEC 2.How do you manage identities for people and machines?](#)
- [SEC 10.How do you anticipate, respond to, and recover from incidents?](#)
- [SEC 11.How do you incorporate and validate the security properties of applications throughout the design, development, and deployment lifecycle?](#)

## Reliability

No improvements identified

## Performance Efficiency

- PERF 7.How do you monitor your resources to ensure they are performing?
- PERF 2.How do you select your compute solution?
- PERF 4.How do you select your database solution?
- PERF 5.How do you configure your networking solution?
- PERF 6.How do you evolve your workload to take advantage of new releases?

## Cost Optimization

- COST 1.How do you implement cloud financial management?
- COST 2.How do you govern usage?
- COST 3.How do you monitor usage and cost?
- COST 10.How do you evaluate new services?
- 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 8.How do you plan for data transfer charges?
- COST 4.How do you decommission resources?

## Sustainability

No improvements identified



# Medium risk

## Operational Excellence

No improvements identified

## Security

- [SEC 3.How do you manage permissions for people and machines?](#)
- [SEC 4.How do you detect and investigate security events?](#)
- [SEC 5.How do you protect your network resources?](#)
- [SEC 6.How do you protect your compute resources?](#)
- [SEC 7.How do you classify your data?](#)
- [SEC 9.How do you protect your data in transit?](#)

## Reliability

No improvements identified

## Performance Efficiency

- [PERF 1.How do you select the best performing architecture?](#)

## Cost Optimization

- [COST 11.How do you evaluate the cost of effort?](#)

## Sustainability

- SUS 2.How do you align cloud resources to your demand?
- 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 management policies and patterns to support your sustainability goals?
- SUS 6.How do your organizational processes support your sustainability goals?






# Lens details

## Operational Excellence

### Questions answered

0/11


### Question status

-  High risk: 0
-  Medium risk: 0
-  No improvements identified: 0
-  Not Applicable: 0
-  Unanswered: 11

### Pillar notes

-

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

 Unanswered

### **Selected choice(s)**

-

### **Not 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
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

---

### **Improvement plan**

Answer the question to view the improvement plan.

## 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
- Enable support plans for production workloads
- 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 a process for event, incident, and problem management
- Have a process per alert
- Prioritize operational events based on business impact
- Define escalation paths
- Define a customer communication plan for outages
- 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

11/11

## Question status

- ⊗ High risk: 4
- ⚠ Medium risk: 6
- ✓ No improvements identified: 1
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

## Pillar notes

-

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

⊗ High risk

### Selected choice(s)

- Separate workloads using accounts
- Secure account root user and properties
- Identify and validate control objectives
- Identify threats and prioritize mitigations using a threat model
- Automate testing and validation of security controls in pipelines
- Evaluate and implement new security services and features regularly

### Not selected choice(s)

- Keep up-to-date with security threats
- Keep up-to-date with security recommendations
- None of these

### Best Practices marked as Not Applicable

-

### Notes

-

### Improvement plan

- [Keep up-to-date with security threats](#)
- [Keep up-to-date with security recommendations](#)

[Ask an expert](#)



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

⊗ High risk

### **Selected choice(s)**

- Use strong sign-in mechanisms
- Store and use secrets securely
- Audit and rotate credentials periodically
- Leverage user groups and attributes

### **Not selected choice(s)**

- Use temporary credentials
- Rely on a centralized identity provider
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Use temporary credentials](#)
- [Rely on a centralized identity provider](#)

[Ask an expert](#)

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

 Medium risk

#### **Selected choice(s)**

- Define access requirements
- Grant least privilege access
- Establish emergency access process
- Reduce permissions continuously
- Define permission guardrails for your organization
- Share resources securely with a third party
- Manage access based on life cycle

#### **Not selected choice(s)**

- Share resources securely within your organization
- Analyze public and cross-account access
- None of these

#### **Best Practices marked as Not Applicable**

-

#### **Notes**

-

#### **Improvement plan**

- [Share resources securely within your organization](#)
- [Analyze public and cross-account access](#)

[Ask an expert](#)

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

 Medium risk

### **Selected choice(s)**

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

### **Not selected choice(s)**

- Automate response to events
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

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### **Improvement plan**

- [Automate response to events](#)

[Ask an expert](#)

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

 Medium risk

### **Selected choice(s)**

- Create network layers
- Control traffic at all layers

### **Not selected choice(s)**

- Automate network protection
- Implement inspection and protection
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Automate network protection](#)
- [Implement inspection and protection](#)

[Ask an expert](#)

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

 Medium risk

### Selected choice(s)

- Perform vulnerability management
- Reduce attack surface
- Enable people to perform actions at a distance
- Validate software integrity

### Not selected choice(s)

- Implement managed services
- Automate compute protection
- None of these

### Best Practices marked as Not Applicable

-

### Notes

-

### Improvement plan

- [Implement managed services](#)
- [Automate compute protection](#)

[Ask an expert](#)

## 7. How do you classify your data?

 Medium risk

### **Selected choice(s)**

- Identify the data within your workload
- Define data protection controls
- Define data lifecycle management

### **Not selected choice(s)**

- Automate identification and classification
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

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### **Improvement plan**

- [Automate identification and classification](#)

[Ask an expert](#)

## 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

### **Not selected choice(s)**

- Enforce access control
- Use mechanisms to keep people away from data
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

No risk detected for this question. No action needed.

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

 Medium risk

### **Selected choice(s)**

- Implement secure key and certificate management
- Enforce encryption in transit

### **Not selected choice(s)**

- Automate detection of unintended data access
- Authenticate network communications
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Automate detection of unintended data access](#)
- [Authenticate network communications](#)

[Ask an expert](#)



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

⊗ High risk

### **Selected choice(s)**

- None of these

### **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

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- 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

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

[Ask an expert](#)

11. How do you incorporate and validate the security properties of applications throughout the design, development, and deployment lifecycle?

⊗ High risk

### **Selected choice(s)**

- Train for application security
- Manual code reviews
- Centralize services for packages and dependencies

### **Not selected choice(s)**

- Perform regular penetration testing
- Deploy software programmatically
- Regularly assess security properties of the pipelines
- Automate testing throughout the development and release lifecycle
- Build a program that embeds security ownership in workload teams
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- Perform regular penetration testing
- Deploy software programmatically
- Regularly assess security properties of the pipelines
- Automate testing throughout the development and release lifecycle

11. How do you incorporate and validate the security properties of applications throughout the design, development, and deployment lifecycle?

- [Build a program that embeds security ownership in workload teams](#)

[Ask an expert](#)

# Reliability

## Questions answered

0/13


## Question status

- ⊗ High risk: 0
- ⚠ Medium risk: 0
- ✓ No improvements identified: 0
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 13

## Pillar notes

-

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

 Unanswered

### **Selected choice(s)**

-

### **Not 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
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**


-

---

### **Improvement plan**

Answer the question to view the improvement plan.

## 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
- Make all responses idempotent
- Do constant work
- 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
- Use bulkhead architectures to limit scope of impact
- Automate recovery for components constrained to a single location
- 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
- Architect your product to meet availability targets and uptime service level agreements (SLAs)
- 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

8/8

## Question status

- ⊗ High risk: 5
- ⚠ Medium risk: 1
- ✓ No improvements identified: 2
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

## Pillar notes

-

## 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

### **Not selected choice(s)**

- Benchmark existing workloads
- Load test your workload
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Benchmark existing workloads](#)
- [Load test your workload](#)

[Ask an expert](#)

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

⊗ High risk

### **Selected choice(s)**

- Evaluate the available compute options
- Understand the available compute configuration options
- Determine the required configuration by right-sizing
- Continually evaluate compute needs based on metrics

### **Not selected choice(s)**

- Collect compute-related metrics
- Use the available elasticity of resources
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Collect compute-related metrics](#)
- [Use the available elasticity of resources](#)

[Ask an expert](#)

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

✔ No improvements identified

#### **Selected choice(s)**

- Understand storage characteristics and requirements
- Evaluate available configuration options

#### **Not selected choice(s)**

- Make decisions based on access patterns and metrics
- None of these

#### **Best Practices marked as Not Applicable**

-

#### **Notes**

-

#### **Improvement plan**

No risk detected for this question. No action needed.

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

⊗ High risk

### Selected choice(s)

- Understand data characteristics
- Choose data storage based on access patterns
- Optimize data storage based on access patterns and metrics

### Not selected choice(s)

- Evaluate the available options
- Collect and record database performance metrics
- None of these

### Best Practices marked as Not Applicable

-

### Notes

-

### Improvement plan

- [Evaluate the available options](#)
- [Collect and record database performance metrics](#)

[Ask an expert](#)

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

⊗ High risk

### Selected choice(s)

- Choose appropriately sized dedicated connectivity or VPN for hybrid workloads
- Optimize network configuration based on metrics

### Not selected choice(s)

- Understand how networking impacts performance
- Evaluate available networking features
- Leverage load-balancing and encryption offloading
- Choose network protocols to improve performance
- Choose your workload's location based on network requirements
- None of these

### Best Practices marked as Not Applicable

-

### Notes

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### Improvement plan

- Understand how networking impacts performance
- Evaluate available networking features
- Leverage load-balancing and encryption offloading
- Choose network protocols to improve performance
- Choose your workload's location based on network requirements



5. How do you configure your networking solution?

[Ask an expert](#)

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

⊗ High risk

### **Selected choice(s)**

- Define a process to improve workload performance
- Evolve workload performance over time

### **Not selected choice(s)**

- Stay up-to-date on new resources and services
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Stay up-to-date on new resources and services](#)

[Ask an expert](#)

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

⊗ High risk

### **Selected choice(s)**

- Record performance-related metrics

### **Not selected choice(s)**

- 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**

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### **Improvement plan**

- 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

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

[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
- Measure the impact of performance improvements
- Use various performance-related strategies

### **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.

# Cost Optimization

## Questions answered

11/11

## Question status

- ⊗ High risk: 8
- ⚠ Medium risk: 1
- ✓ No improvements identified: 2
- ⊖ Not Applicable: 0
- ⌚ Unanswered: 0

## Pillar notes

-

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

⊗ High risk

### Selected choice(s)

- Establish a cost optimization function
- Establish a partnership between finance and technology
- Establish cloud budgets and forecasts
- Keep up to date with new service releases
- Quantify business value from cost optimization
- Report and notify on cost optimization
- Create a cost-aware culture

### Not selected choice(s)

- Implement cost awareness in your organizational processes
- Monitor cost proactively
- None of these

### Best Practices marked as Not Applicable

-

### Notes

-

### Improvement plan

- [Implement cost awareness in your organizational processes](#)
- [Monitor cost proactively](#)

[Ask an expert](#)

## 2. How do you govern usage?

⊗ High risk

### **Selected choice(s)**

- Implement cost controls
- Track project lifecycle

### **Not selected choice(s)**

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

### **Best Practices marked as Not Applicable**

-

### **Notes**

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### **Improvement plan**

- [Develop policies based on your organization requirements](#)
- [Implement goals and targets](#)
- [Implement an account structure](#)
- [Implement groups and roles](#)

[Ask an expert](#)



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

⊗ High risk

#### **Selected choice(s)**

- None of these

#### **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

#### **Best Practices marked as Not Applicable**

-

#### **Notes**

-

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#### **Improvement plan**

- [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](#)

[Ask an expert](#)

## 4. How do you decommission resources?

⊗ High risk

### Selected choice(s)

- Decommission resources
- Enforce data retention policies

### Not selected choice(s)

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

### Best Practices marked as Not Applicable

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### Notes

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### Improvement plan

- [Track resources over their life time](#)
- [Implement a decommissioning process](#)
- [Decommission resources automatically](#)

[Ask an expert](#)

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

⊗ High risk

### **Selected choice(s)**

- Analyze all components of this workload
- Perform a thorough analysis of each component
- Select components of this workload to optimize cost in line with organization priorities

### **Not selected choice(s)**

- Identify organization requirements for cost
- Perform cost analysis for different usage over time
- Select software with cost effective licensing
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Identify organization requirements for cost](#)
- [Perform cost analysis for different usage over time](#)
- [Select software with cost effective licensing](#)

[Ask an expert](#)

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

⊗ High risk

### **Selected choice(s)**

- Select resource type, size, and number based on data

### **Not selected choice(s)**

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

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

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

[Ask an expert](#)

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

✔ No improvements identified

### **Selected choice(s)**

- Perform pricing model analysis
- Implement Regions based on cost
- Select third party agreements with cost efficient terms

### **Not selected choice(s)**

- 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**

No risk detected for this question. No action needed.

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

⊗ High risk

### **Selected choice(s)**

- Implement services to reduce data transfer costs

### **Not selected choice(s)**

- Perform data transfer modeling
- Select components to optimize data transfer cost
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

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### **Improvement plan**

- [Perform data transfer modeling](#)
- [Select components to optimize data transfer cost](#)

[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

### **Not selected choice(s)**

- Supply resources dynamically
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

No risk detected for this question. No action needed.

## 10. How do you evaluate new services?

⊗ High risk

### Selected choice(s)

- None of these

### Not selected choice(s)

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

### Best Practices marked as Not Applicable

-

### Notes

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### Improvement plan

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

[Ask an expert](#)



## 11. How do you evaluate the cost of effort?

 Medium risk

### Selected choice(s)

- None of these

### Not selected choice(s)

- Perform automations for operations

### Best Practices marked as Not Applicable

-

### Notes

-

### Improvement plan

- Perform automations for operations

[Ask an expert](#)

# 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 for your workload?

✔ No improvements identified

### **Selected choice(s)**

- Choose Region based on both business requirements and sustainability goals

### **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 align cloud resources to your demand?

 Medium risk

### Selected choice(s)

- Align SLAs with sustainability goals
- Stop the creation and maintenance of unused assets
- Optimize team member resources for activities performed
- Implement buffering or throttling to flatten the demand curve

### Not selected choice(s)

- Scale workload infrastructure dynamically
- Optimize geographic placement of workloads based on their networking requirements
- None of these

### Best Practices marked as Not Applicable

-

### Notes

-

### Improvement plan

- [Scale workload infrastructure dynamically](#)
- [Optimize geographic placement of workloads based on their networking requirements](#)

[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
- Remove or refactor workload components with low or no use
- Optimize areas of code that consume the most time or resources
- Optimize impact on devices and equipment

#### **Not selected choice(s)**

- 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**

- [Use software patterns and architectures that best support data access and storage patterns](#)

[Ask an expert](#)

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

 Medium risk

### **Selected choice(s)**

- Remove unneeded or redundant data
- Use shared file systems or storage to access common data
- Minimize data movement across networks
- Back up data only when difficult to recreate
- Use technologies that support data access and storage patterns

### **Not selected choice(s)**

- Implement a data classification policy
- Use policies to manage the lifecycle of your datasets
- Use elasticity and automation to expand block storage or file system
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

-

### **Improvement plan**

- [Implement a data classification policy](#)
- [Use policies to manage the lifecycle of your datasets](#)
- [Use elasticity and automation to expand block storage or file system](#)

[Ask an expert](#)

## 5. How do you select and use cloud hardware and services in your architecture to 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 hardware-based compute accelerators

### **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 organizational processes support your sustainability goals?

 Medium risk

### **Selected choice(s)**

- Increase utilization of build environments
- Use managed device farms for testing

### **Not selected choice(s)**

- Adopt methods that can rapidly introduce sustainability improvements
- Keep your workload up-to-date
- None of these

### **Best Practices marked as Not Applicable**

-

### **Notes**

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### **Improvement plan**

- [Adopt methods that can rapidly introduce sustainability improvements](#)
- [Keep your workload up-to-date](#)

[Ask an expert](#)