
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

ENT304

Is your SAP system Well-Architected?

Eneko Bilbao (he/him)

Principal Solution Architect – SAP
Amazon Web Services

Adam Hill (he/him)

Worldwide Tech Leader – SAP
Amazon Web Services

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

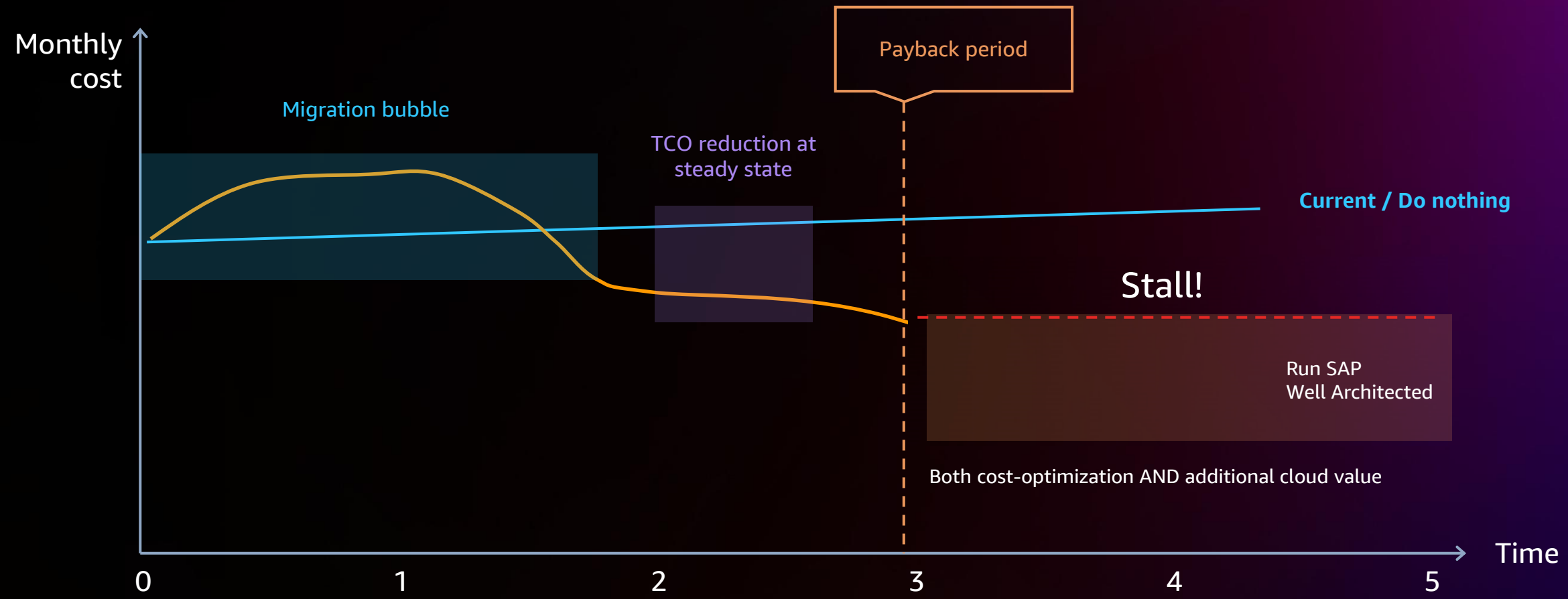
Agenda

- What is the SAP Lens for AWS Well-Architected?
- Takeaways from the design principles and best practices
- Value of a review: Example customer benefits

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Why Well-Architected?

A TYPICAL CLOUD VALUE JOURNEY



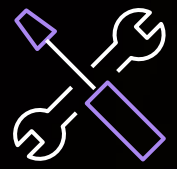
Well-Architected = Delivering on the value of cloud

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

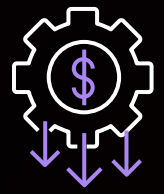
What is the SAP Lens for AWS Well-Architected?



Security



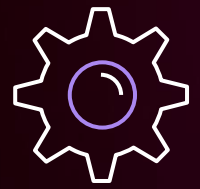
Reliability



Cost optimization



Performance efficiency



Operational excellence



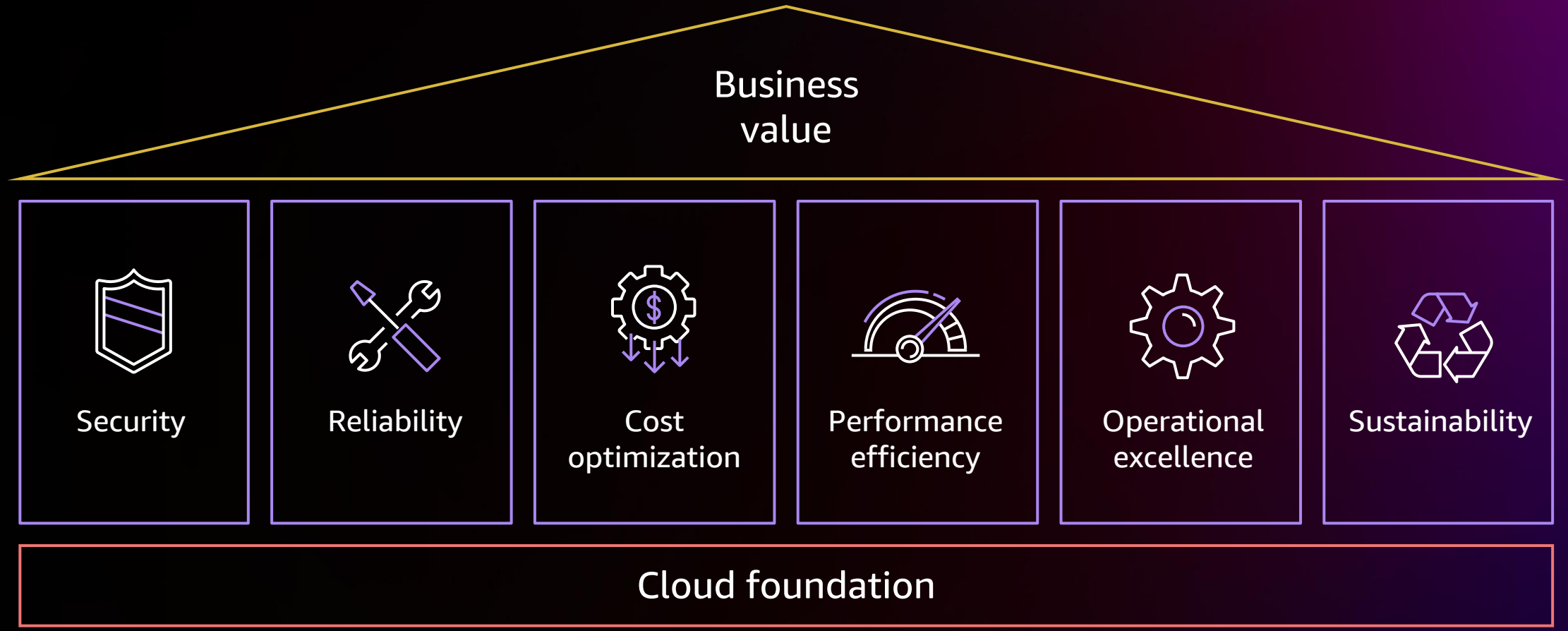
Sustainability

The key outcome is for customers to **explicitly understand** the **decisions** they have made and the tradeoffs these involve

aws

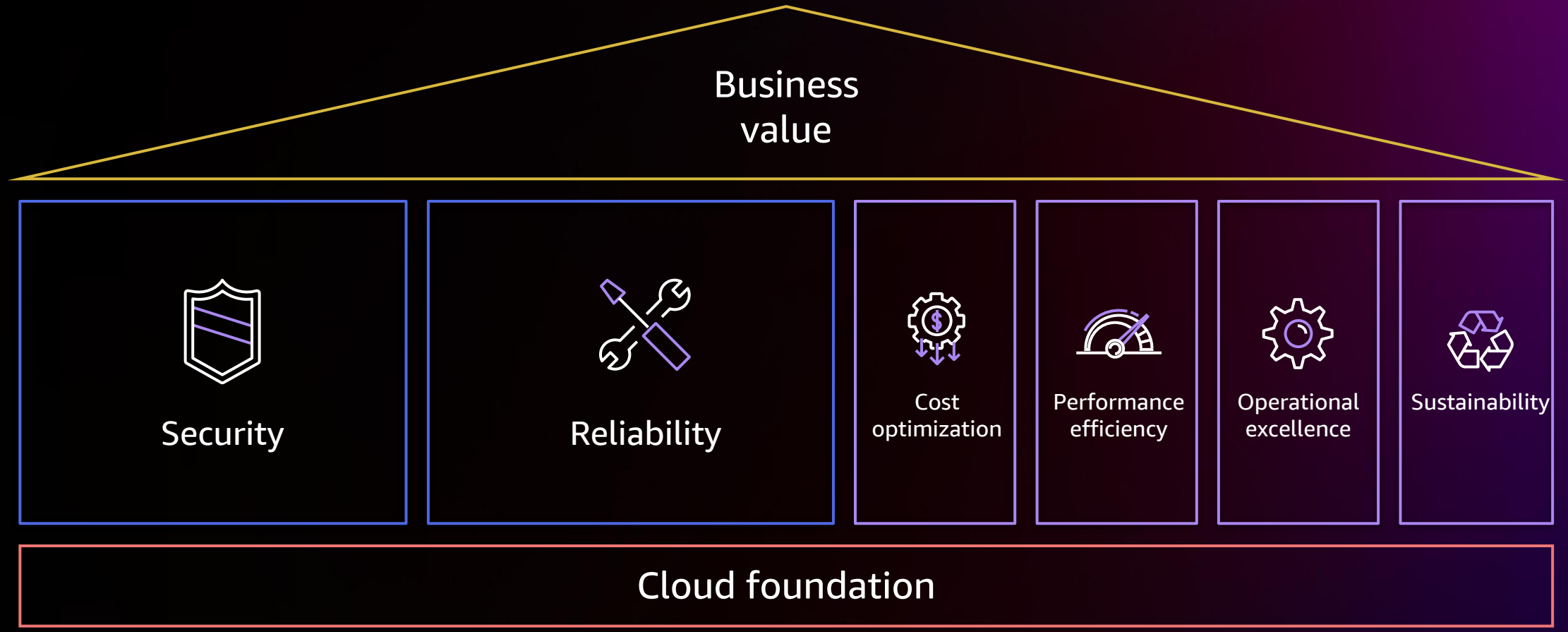
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Pillar importance is different for every customer



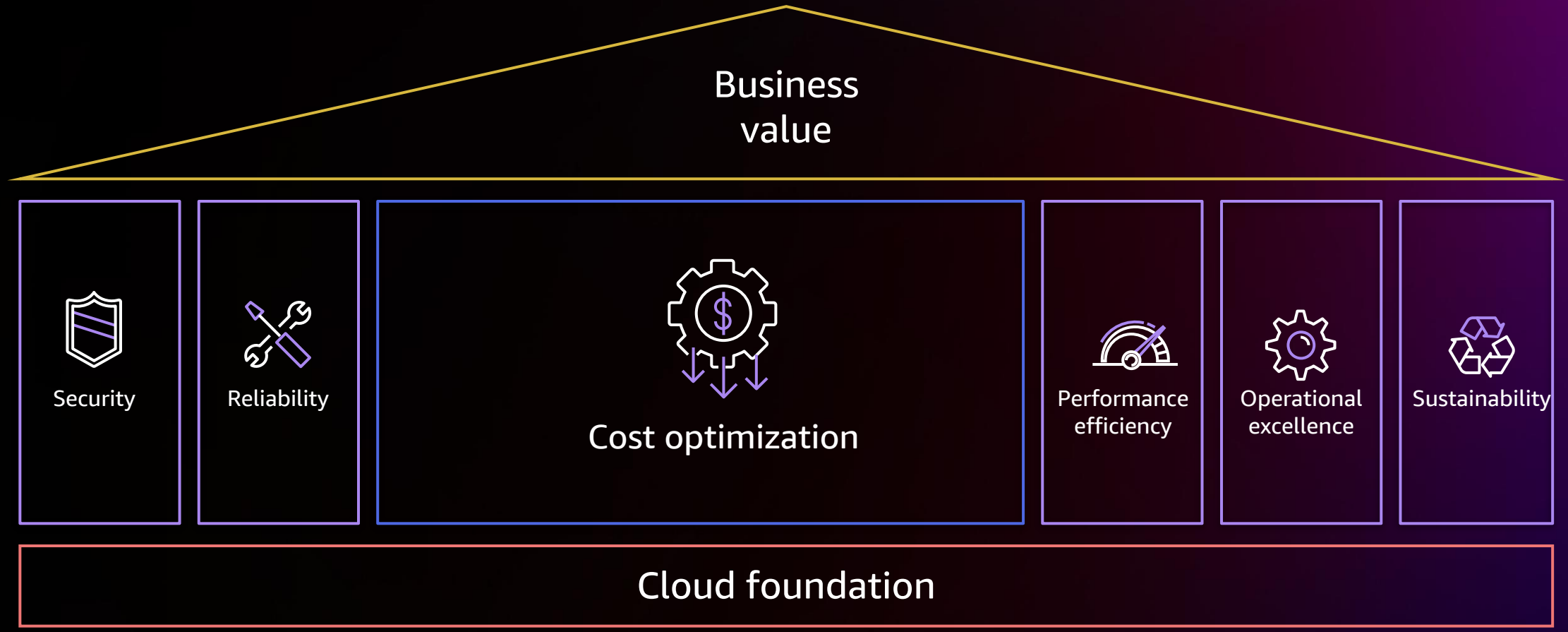
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Pillar importance is different for every customer

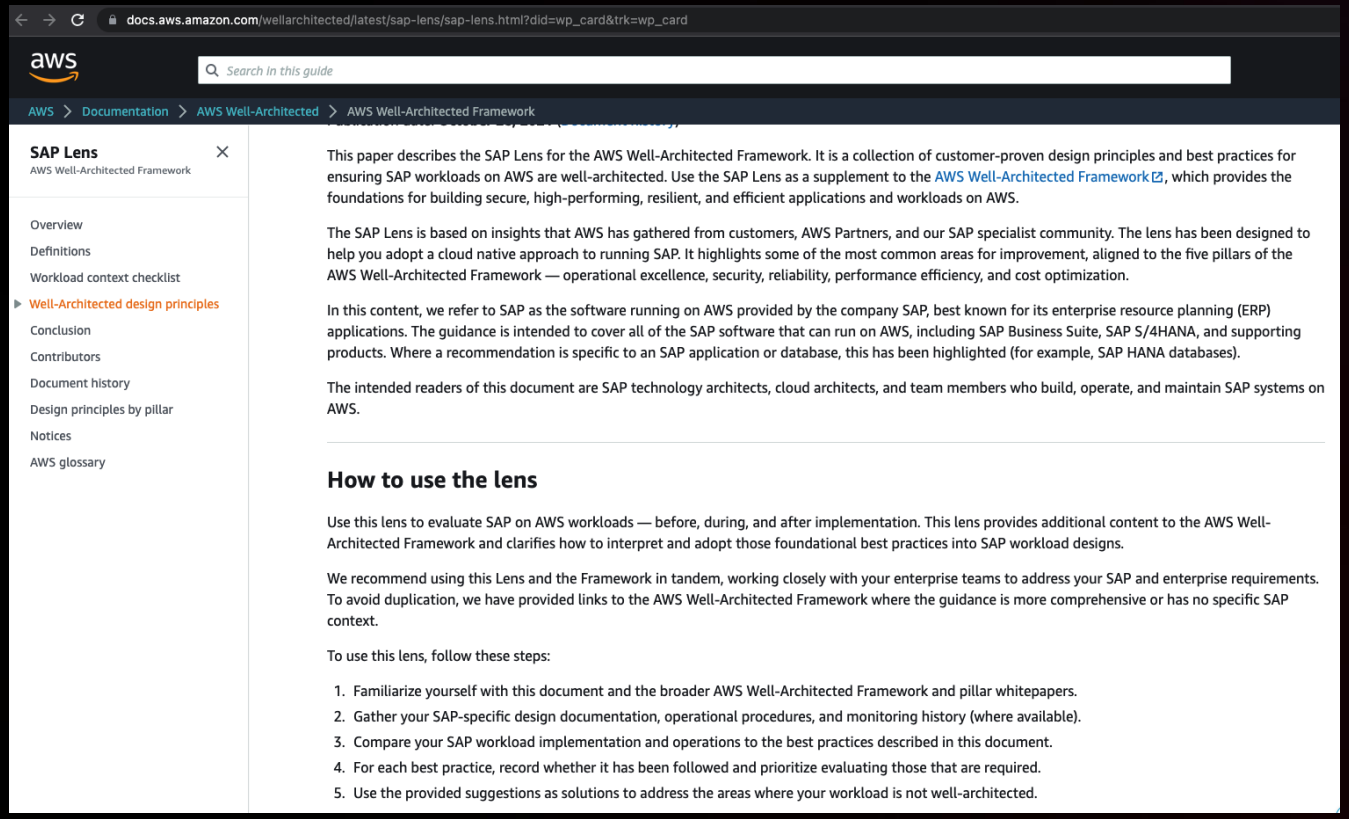


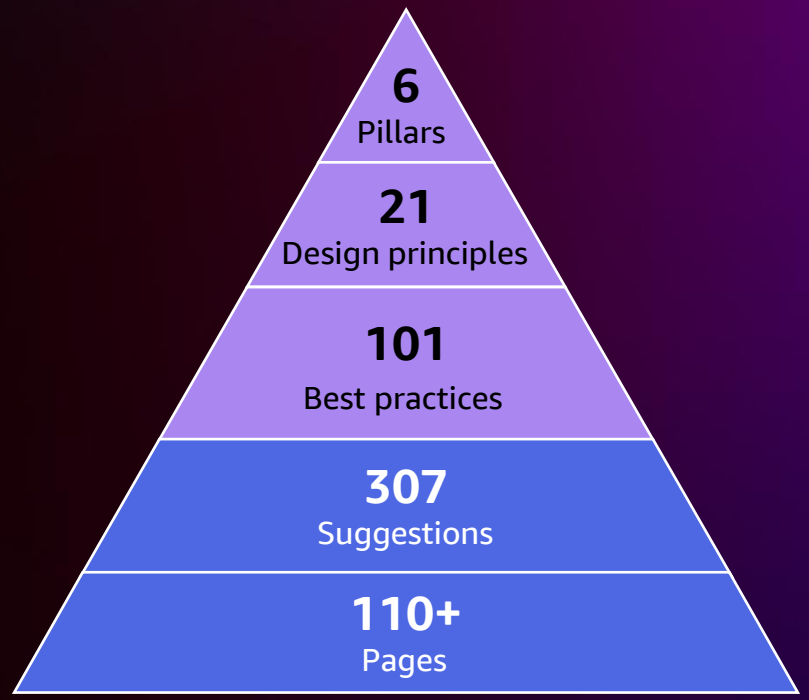
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Pillar importance is different for every customer



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.





© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Common areas for improvement

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.













There will be less disruption if you start secure

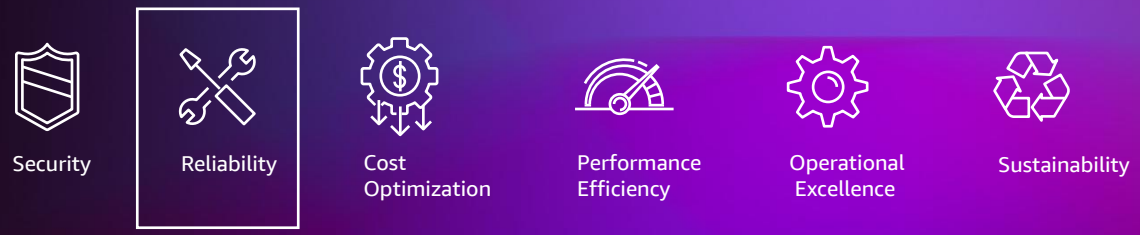
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Security



Themes	SAP Lens
• Identity and access management • Detective controls • Infrastructure protection • Data protection • Incident response	• Understand security standards and how they apply to your SAP workload • Use infrastructure and software controls to reduce security misconfigurations • Control access to your SAP workload through identity and permissions • Protect your SAP data at rest and in transit • Implement a security strategy for logging, testing, and responding to security events

aws
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Test failures and recovery aggressively, then periodically

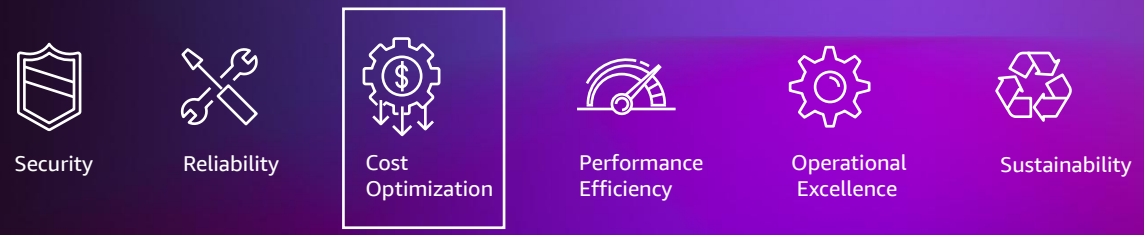
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Reliability



Themes	SAP Lens
• Foundations	• Design to withstand failure
• Change management	• Detect and react to failures
• Failure management	• Plan for data recovery

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Give visibility and course correct

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Cost optimization



Themes	SAP Lens
• Cost-effective resources • Matching supply and demand • Expenditure awareness • Optimizing over time	• Evaluate SAP architecture patterns for cost efficiency • Evaluate SAP compute resources for cost efficiency • Optimize SAP data usage for storage cost efficiency • Manage costs with visibility, planning, and governance

aws
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

Sizing for performance is not fixed in cloud – overprovision by exception

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Performance efficiency


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

Themes	SAP Lens
• Selection • Review • Monitoring • Trade-offs	• Select the optimal compute solution • Select the optimal storage solution • Evaluate tuning options for the operating system, database, and SAP applications • Understand ongoing performance and optimization options

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

Automation is more than just speed

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

Knowledge is power – you can’t improve what you don’t measure

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Operational Excellence


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

Themes	SAP Lens
• Prepare	• Design SAP workload to allow understanding and reaction to its state
• Operate	• Reduce defects, ease remediation, and improve workflow of SAP change
• Evolve	• Understand how you will operate the workload
	• Validate and improve your SAP workload regularly

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Sustainability is highly correlated to cost optimization – use this as motivation

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Sustainability


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

Themes	SAP Lens
• Focus	• Understand business requirements to make sustainability-centric design decisions
• Implement	• Implement sustainability improvements for infrastructure and SAP
• Measure	• Implement sustainability monitoring for infrastructure and SAP

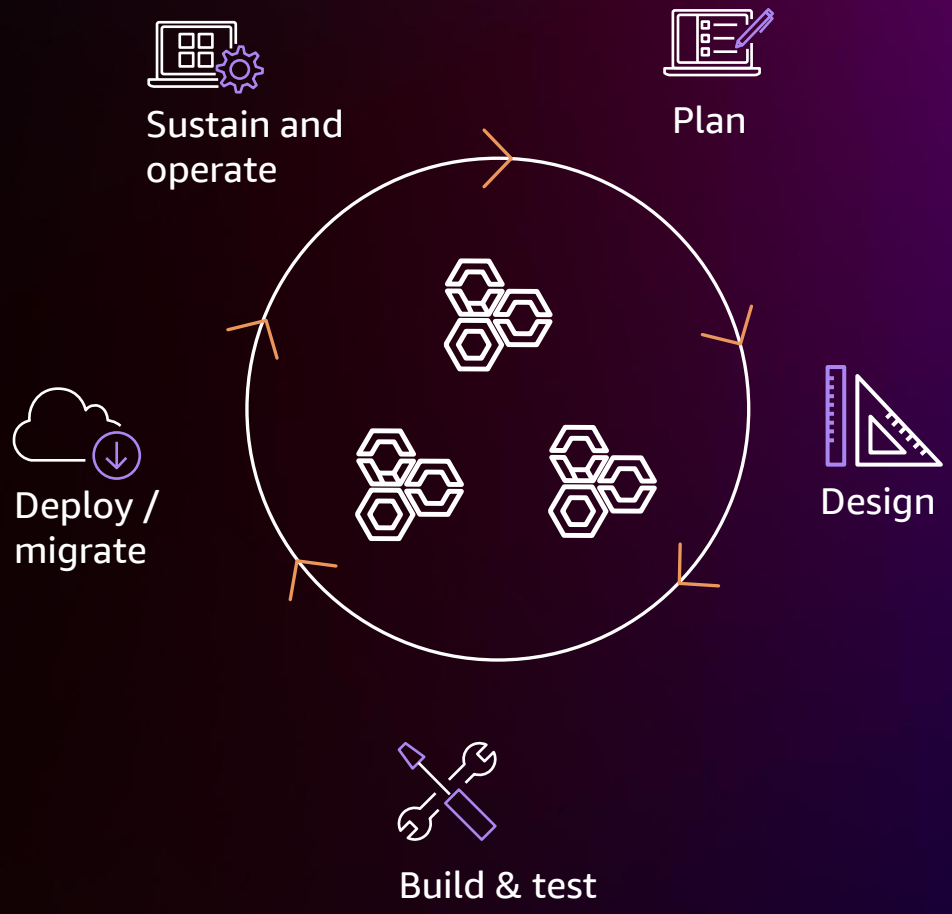
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

When should you do a Well Architected review?

Anytime!

… but typically of most value in the following scenarios:

1) Post-design review
2) Pre-go-live review
3) 12-24 months post-go-live and annually in operations



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.


Security


Reliability


Cost Optimization


Performance Efficiency


Operational Excellence


Sustainability

SAP in the cloud should be evergreen – manage a product not a project

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Q&A

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

What's new for SAP on AWS?



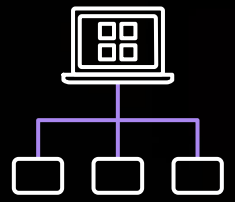
Migration

- Migration Hub Orchestrator
- Improvements to Migration Acceleration Program for SAP workloads



Innovation

- Bidirectional data flows with Amazon AppFlow
- Amazon AppFlow ODP support
- AWS SDK for SAP ABAP



Infrastructure

- Intel Ice Lake-based EC2 instances (X2i, R6i,M6i and C6i)
- AMD Milan-based EC2 instances (R6a, M6a, and C6a)
- Virtualized 18 TB and 24 TB High-Memory instances
- Amazon FSx for NetApp ONTAP (FSx for ONTAP)
- Support for SAP HANA host auto-failover with FSx for ONTAP
- AWS Backup service support for SAP HANA



Management and Operations

- Launch Wizard improvements
  - Scale deployments
  - Clone deployments
  - Solution Manager
- AWS Systems Manager support for SAP
- Observability for NetWeaver using AppInsights

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Introducing the AWS SDK for SAP ABAP

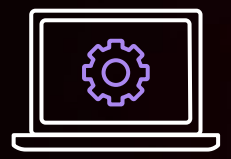


Makes it easy for ABAP developers to extend and transform SAP-based business processes by harnessing the power of AWS services natively using the SAP ABAP language



Accelerate business process innovation

by giving ABAP developers native access to all 300+ AWS services



Reduce architectural complexity

by eliminating the need to manually create complex integrations between SAP and AWS services



Maintain a strong security posture

by encrypting all payloads with HTTPS and enforcing SAP-level permissions



Upskill ABAP development teams

by making it easy to for them to build cloud-based solutions

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

AWS Backup support for SAP HANA

- A fully managed, policy-based backup service that makes it easy to centrally manage and automate the backup of data across AWS services
- Provides application-consistent log and data backups of SAP HANA databases running on EC2
- Easily restore your SAP HANA applications to a per-second granularity
- Create immutable backups and simplify compliance monitoring

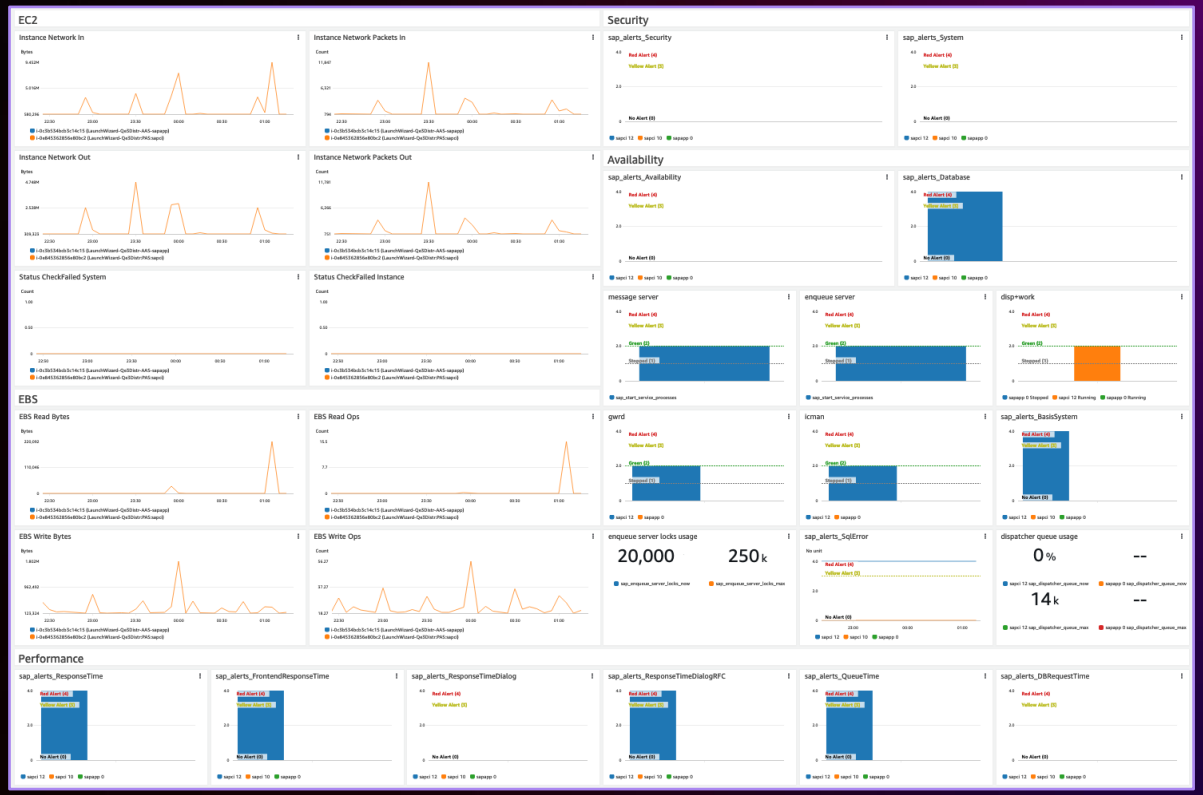


© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

CloudWatch application insights for SAP NetWeaver & HANA

Enable SAP technical teams with observability across the entire SAP technical stack

- Automatic dashboards
- Problem detection and notification
- Insights that point to potential root causes
- Automatic setup of monitoring for application resources
- Support for high-availability landscapes and cluster monitoring
- Uses AI/ML to analyze NetWeaver and HANA system metrics, determine normal baselines, and surface anomalies with minimal user intervention



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

ISG recognizes **AWS as an SAP HANA Infrastructure Services Leader** for the 5th straight year

"AWS has more than a decade of experience in hosting SAP workloads and offers a wide array of choices for customers. It has the most market share and the largest SAP on AWS partner ecosystem in the U.S... AWS offers a robust and secure infrastructure platform for clients to run their most mission-critical SAP workloads."

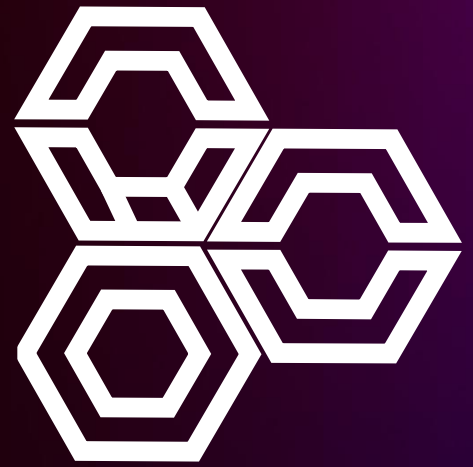


© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Call to action! Well-Architected outcomes

Running SAP on AWS from 1-5+ years: Customer examples from the field:

- 20% reduction in cloud spend in 3 months
- Improved system provisioning by 90% (automation)
- Implemented ransomware recovery overnight
- 15% reduced storage costs over a weekend
- 220% batch job speed improvement overnight



So when is your next review?

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!



Please complete the session survey in the **mobile app**

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.