RECOCHAIN
Recochain Private Limited

SOARING TO NEW HEIGHTS – RE-ARCHITECTING AND REDEPLOYING AKASA AIR'S

AWS Cloud Infrastructure of over 50+ instances for Optimum Performance, Robust Security, High Availability and Scalability.

Akasa Air
IT'S YOUR SKY

aws amazon
web services

www.recochain.com

About
the Customer

Akasa Air is one of India's recently launched leading passenger airlines, operating both domestic and international sectors. The airline's operations rely heavily on business applications developed in-house and off the shelf software products from third-party vendors. Their entire passenger services operations are run completely online 24x7, 365 days

Background &
Challenge

Operating within the airline industry necessitates a secure, scalable and high available IT infrastructure.

As the business started expanding rapidly and the customer base starting to increase many folds, Akasa Air's in-house IT team needed to scale up quickly to address the AWS infrastructure challenges to meet the demands of the business users.

Since this exercise was a onetime effort, Akasa Air wanted to work with a consulting partner to augment their own team. Akasa Air was very clear from the beginning that the consulting partner chosen should be lean, nimble and extremely responsive to meet the tight deadlines but at the same time possess deep technical skills in AWS core infrastructure, Network and Security and have good appreciation of the demands of the Airline Industry.

Recochain, with deep knowledge and expertise on AWS, was chosen as a partner to augment Akasa Air team. The two teams collaborated and agreed that it is better to rearchitect the current infrastructure to meet the increased demands of the future and towards that a task force was set up to focus on scalability, availability, network visibility, performance and security areas to be addressed immediately.

Solution:

The combined team of architects and engineers addressed the challenge with a systematic, two-pronged approach:

1. **Assessment of the Existing Infrastructure:** Utilizing both manual and automated tools.

2. **Design and Implementation of a New Architecture:** Tailored to meet the client's business requirements.

Execution:

Assessment and Planning

The experienced AWS Cloud infrastructure architects working alongside subject matter experts in security, networking, and DevOps of Akasa Air's team, conducted a thorough assessment of the existing AWS infrastructure. This was done manually and with automated tools and scripts, adhering to AWS best practices and the well-architected framework.

The assessment provided a comprehensive understanding of the current infrastructure and the business purposes of the deployed resources, as communicated by Akasa's IT and application teams. This detailed analysis identified key areas of improvement to align the infrastructure with business requirements.

Design and Implementation

The team agreed that an enhancement of the architecture of the underlying infrastructure, addressing not just the identified improvements but also enhancing the overall design should be taken up.

Key Actions Taken:

Landing Zones and Account Segregation: Implemented landing zones and segregated accounts to enhance manageability.

Network Redesign: Redesigned the network to improve performance and security, ensuring it met the airline's requirements.

Enhanced Security Measures: Implemented robust security measures aligned with industry standards and compliance requirements.

Cost Optimization: Selected the appropriate instances and services to optimize costs.

Phased Migration: Executed a phased migration from the existing infrastructure to the newly created accounts and networks.

GOAL

Enhance the airline's Cloud infrastructure to improve security, scalability, manageability, and reliability, while optimizing costs for future international expansion.

STORY

Because of the rapid growth of the customer and the deployment of Cloud Infrastructure to cater for the growth, resulting in lack of available time or manpower for proper planning. This led to network visibility issues, security gaps, and inefficient resource management. To address these challenges, the airline sought expert assistance for a comprehensive infrastructure reassessment and re-architecture.

SOLUTION

Recochain's team performed a detailed assessment using manual and automated tools, identifying key improvement areas. The new AWS architecture included:
• Landing zones and account segregation for better manageability.
• Redesigned network for enhanced performance and security.
• Robust, industry-aligned security measures.
• Cost optimization through appropriate instance and service selection.
• Phased migration to the new infrastructure.

IMPACT

The re-architected AWS infrastructure delivered:
• **Manageability:** Improved visibility and control.
• **Scalability:** Support for future growth.
• **Security:** Enhanced risk mitigation.
• **Reliability:** Robust performance.
• **Cost-Effectiveness:** Reduced operational expenses.
This transformation positioned the airline for efficient, secure, and cost-effective international expansion.

Result:

The re-architected AWS infrastructure provided the following key benefits:

Easily Manageable: Segregated accounts and landing zones facilitate better visibility and control.

Scalable: Redesigned architecture supports growth and scalability.

Secure: Enhanced security measures mitigate risks and align with industry standards.

Reliable: Improved network design ensures robust performance and availability.

Optimized for Cost: Strategic selection of services and instances reduces operational costs.

This comprehensive overhaul has positioned the airline company to operate more efficiently, securely, and cost-effectively as they prepare to expand their services internationally.

The Driving Force:-

Akasa Air

Anand Srinivasan
Co-Founder and CIO

Shankar Jayaraman
CISO and VP, Development

Kaushik Janardhanan
General Manager, IT

Jonathan Paul
Solutions Architect

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