



Dily's Modernization with AWS ECS Fargate and the Well-Architected Framework

Executive Summary

Dily, a leading platform in LATAM for buying and selling vehicles, offers a comprehensive suite of digital services, including financing, vehicle transfer, and automotive insurance. To support its growing customer base and expand its service offerings, Dily needed to modernize its cloud infrastructure. Partnering with binbash, an AWS Select Tier Services Partner, Dily embarked on a cloud modernization journey. This case study highlights how Dily leveraged AWS ECS Fargate, CloudFront, Lambda, and Well-Architected best practices, alongside binbash Leverage™, to significantly enhance scalability, security, and operational efficiency, achieving a nearly 10x improvement in delivery efficiency.

Customer Challenge

As Dily expanded its platform to offer more digital services, several challenges emerged:

- **Scalability:** The infrastructure needed to scale rapidly to accommodate an increasing number of vehicle transactions and related services, such as financing and insurance.
- **Security:** Protecting sensitive data involved in vehicle transfers, financing, and insurance transactions was critical.
- **Operational Efficiency:** Streamlining deployment processes to ensure quick, reliable updates to the platform was essential for maintaining a competitive edge.
- **Cost Management:** Optimizing operational costs while supporting a growing digital platform was necessary for sustainable growth.

Solution

We modernized Dily's infrastructure by deploying a Well-Architected AWS Landing Zone, implementing ECS Fargate, and establishing robust CI/CD pipelines. Using Infrastructure as Code (IaC) with binbash Leverage accelerated delivery nearly 10x.

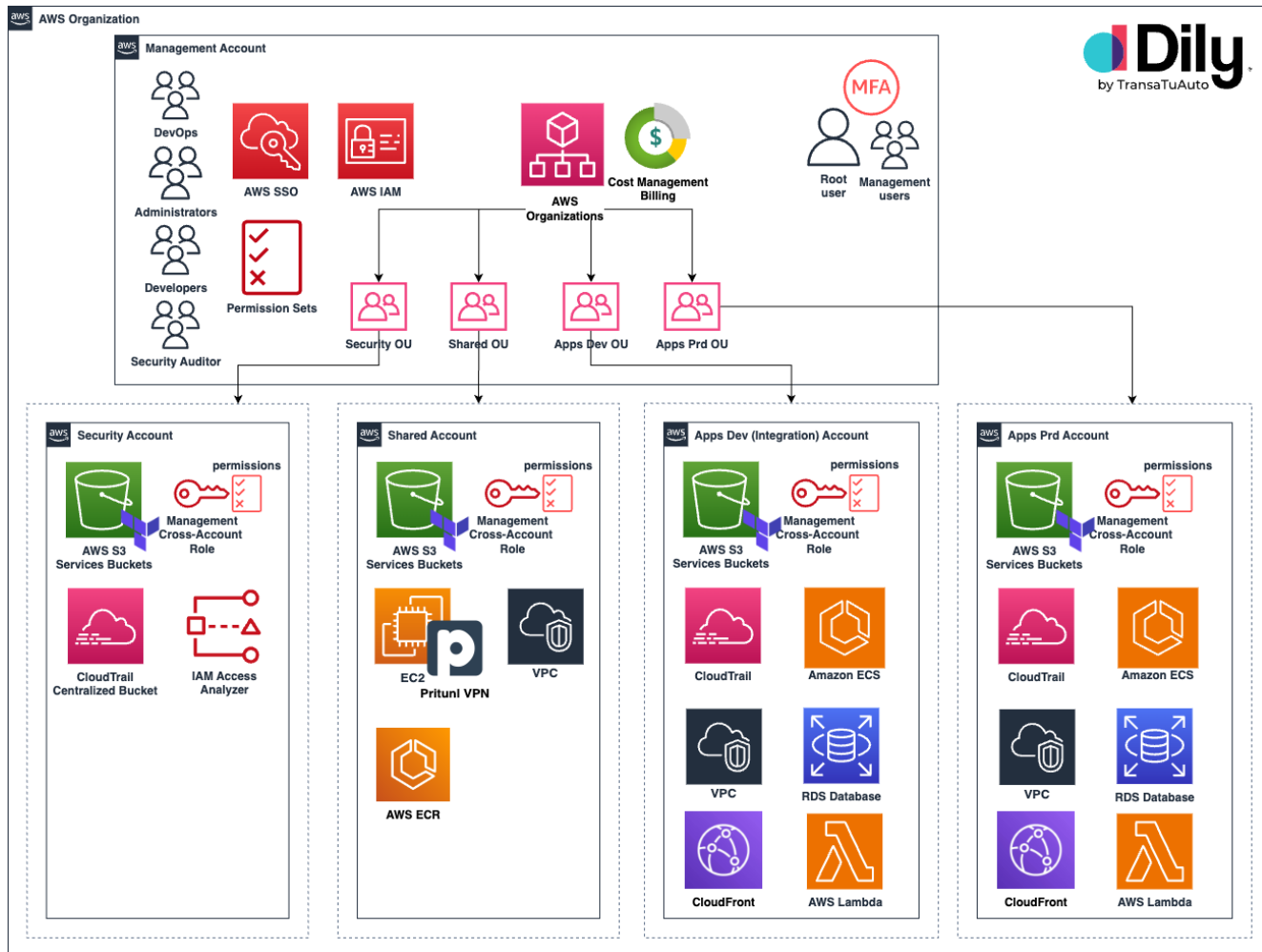


Dily is a leading digital platform in Latin America that revolutionizes the way people buy and sell vehicles. Offering a comprehensive suite of services, Dily enables users to manage the entire vehicle transaction process online, securely, and efficiently. From financing and vehicle transfers to automotive insurance and digital marketplaces, Dily provides everything needed to complete vehicle transactions seamlessly on a single platform. Dily's innovative approach empowers both individual users and automotive businesses, allowing them to streamline operations, increase profitability, and enhance customer satisfaction through its user-friendly, fully integrated digital solutions. With a strong focus on scalability, security, and customer experience, Dily continues to lead the automotive services industry in Latin America.



binbash helped us a lot to organize and simplify our infrastructure. What I value most is the willingness to help us understand what they did with their tutorials and the final result that is all well integrated infrastructure as code.

Carlos Álvarez -
Tech Lead



Key Components of the solution

1. AWS Well-Architected Landing Zone:

Foundation Setup: Established a secure, scalable AWS infrastructure to support Dily's digital platform, including IAM and SSO for centralized management.

Security Baseline: Configured essential security services like CloudTrail, IAM Access Analyzer, and KMS to protect sensitive data.

2. ECS Fargate Deployment:

Scalable Architecture: Deployed ECS Fargate clusters to handle the growing volume of vehicle transactions and services like financing and vehicle transfer.

Optimized Networking: Configured VPCs, subnets, and NAT gateways for efficient, secure



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3. CI/CD Pipelines:

Automated Workflows: Developed CI/CD pipelines to automate the build, test, and deployment processes, enabling rapid feature releases and updates.

Dockerization: Ensured consistent environments across development and production stages with Docker, enhancing reliability and efficiency.

4. CloudFront and Lambda Integration:

Content Delivery: Deployed AWS CloudFront to enhance the speed and reliability of content delivery across the platform.

Serverless Processing: Utilized AWS Lambda for efficient, event-driven processing of tasks related to vehicle transactions and customer interactions.

5. Cost Optimization:

Efficient Resource Management: Configured Auto Scaling for ECS tasks and implemented billing alerts to optimize costs while maintaining performance.

Results

By deploying ECS Fargate, CloudFront, and Lambda, and adhering to AWS's Well-Architected best practices, Dily realized several key benefits:

- **Enhanced Scalability:** The platform now seamlessly scales to accommodate increased demand for services such as vehicle financing, insurance, and transfer.
- **Improved Security:** Robust security measures, including encryption and IAM best practices, protect sensitive transaction data.
- **Increased Efficiency:** Automated CI/CD processes significantly reduced deployment times, allowing for quicker updates and new feature rollouts.
- **Optimized Content Delivery:** The integration of CloudFront ensured faster, more reliable content delivery to users.
- **Cost Management:** Optimized resource usage and proactive cost monitoring resulted in substantial savings.
- **Accelerated Delivery:** Adopting binbash Leverage™ for AWS, the project was completed nearly 10 times faster, greatly enhancing Dily's time-to-market and service delivery.



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network operations.

Database and Load Balancing: Implemented Amazon RDS and Application Load Balancers to support high availability and efficient traffic management.

Key Milestones

- **AWS Landing Zone Setup:** Created a secure, scalable foundation for Dily's digital operations.
- **ECS Fargate Deployment:** Implemented containerized environments to support Dily's extensive range of digital vehicle services.
- **CI/CD Pipeline Implementation:** Automated deployment processes for both frontend and backend services, ensuring rapid and reliable updates.
- **CloudFront and Lambda Integration:** Enhanced content delivery and processing efficiency across Dily's platform.

Conclusion

The collaboration between Dily and binbash resulted in a robust, scalable, and secure cloud infrastructure, perfectly aligned with AWS Well-Architected best practices. The strategic use of AWS ECS Fargate, CloudFront, and Lambda, combined with the efficiency of binbash Leverage™ for AWS, enabled Dily to rapidly expand its service offerings while maintaining high standards of security and operational excellence. This transformation has set a solid foundation for Dily's continued growth in the automotive services industry.