AWS and Virtusa implement RA² Infrastructure for continuous coverage for a leading US-based American Pet retailer focusing on improving the life of Pets.

Challenges

- US-based health & wellness company needed an e-commerce application which is robust and is available to its clients 24x7.
- Due to unforeseen issues and the lack of highly public infrastructure, the client's application was offline for more than 16 hours each day. The lack of 24/7 e-commerce availability led to the loss of
- The client looked for a partner with experience with AWS, resilient infrastructure experience, and application modernization capabilities to address these challenges.

Solution

- Created a secure, multi-org AWS environment leveraging AWS Control Tower.
- Used Terraform to develop IaC scripts with security and DevOps by design to deploy web, mobile, and scheduling applications to the new landing zone.
- Applied WAR (Well-Architected Review) framework principles to develop a scalable architecture to support future migrations.
- Refactored and migrated three mission-critical applications to the new environment to support in-region multi AZ high availability (HA) architecture for a better and more reliable application performance.
- Implemented the cross region active (RW) /active (R) deployment disaster recovery model with the ability of failover automation in the event of a disaster.

Value delivered

- Reduced risk and improved governance
  - Simplified the client's cloud governance and security aspects of the AWS account with a unified view of the entire cloud infrastructure. Result: 60% savings in efforts
  - Allowed for quick and easy adding or decommissioning applications with all the compliances
  - Provided visibility into resource utilization across the organization, making it easy to ensure baseline security, and monitor and control IT budgets
- Automated policy management
  - Implemented guardrails to enforce service control policies (SCPs) and detect violations using AWS configuration rules.
- Higher availability
  - Drove high availability to 99.999% with AWS multi-region deployment
- Improved disaster management
  - Reduced disaster recovery time and brought within the recovery time objective (RTO) from four hours for critical and recovery point objective to less than 15 minutes
- Enabled regional failover
  - Developed code assets using region agnostic IaC to support warm standby, cross region active (RW) /active (R) deployment disaster recovery, and required failover automation

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