# ✷ TrueMark

## Addressing Service Incidents and Enhancing Efficiency: A Case Study of TrueMark Migrating LinkTrust from Azure to AWS

## Introduction

This case study examines the strategic migration of LinkTrust from Azure to Amazon Web Services (AWS) undertaken to address significant challenges in service availability, complex load balancing, and billing discrepancies. Managed by TrueMark, a leader in IT services, this migration showcases the transformative impact on LinkTrust's operations, emphasizing the benefits of AWS in resolving critical operational issues.

## About the Customer

LinkTrust provides a robust platform designed for businesses to track, manage, and optimize online advertising campaigns, including affiliate marketing programs. Operating in the competitive digital marketing industry, LinkTrust needed a reliable and scalable cloud infrastructure to support their expansive service offerings.

## Customer Challenge

LinkTrust faced significant challenges that hindered its ability to provide reliable, efficient, and cost-effective services to its customers:

- **High Availability Challenges:** Frequent service disruptions and problematic regional failovers on Azure resulted in significant downtime. These outages negatively impacted customer trust, operational efficiency, and overall business performance.

- **Complex Load Balancing Issues:** Inefficient load balancing mechanisms caused uneven workload distribution, leading to service disruptions and poor application performance. This highlighted the need for a more reliable and scalable solution.

- **Opaque Billing Practices:** Lack of transparency and control over Azure's billing processes created unforeseen expenses, making financial planning and budgeting difficult.

These challenges underscored the need for a robust and modern infrastructure to enhance reliability, scalability, and cost transparency.

## Partner Solution

TrueMark, an AWS Advanced Tier Partner, designed and implemented a comprehensive solution to migrate LinkTrust's infrastructure from Azure to AWS. The migration addressed critical availability, performance, and cost management issues while ensuring minimal downtime and operational continuity.

# Key AWS Services Utilized

- **Amazon EC2:** Provided scalable compute capacity for hosting applications, ensuring seamless performance during varying workloads.

- **AWS Elastic Load Balancing (ELB):** Enhanced fault tolerance and service availability by distributing traffic across multiple EC2 instances.

- **Amazon RDS:** Delivered managed database services with automated backups, patching, and recovery for improved data reliability.

- **Amazon S3:** Offered cost-effective and scalable storage for data and backups, ensuring high availability and security.

- **Amazon Elastic Block Store (EBS):** Delivered high-performance storage for critical workloads with low-latency access.

- **AWS Certificate Manager (ACM):** Automated SSL/TLS certificate management to secure communications and improve trust.

- **AWS Cost Management Tools:** Provided detailed insights into resource usage, enabling proactive cost optimization and budget accuracy.

- **AWS Secrets Manager:** Safeguarded sensitive credentials like API keys and database passwords with automated rotation and management.

- **AWS Route 53:** Ensured efficient DNS management and highly available traffic routing.

# Implementation Process

- **Assessment and Planning:** TrueMark conducted a thorough assessment of LinkTrust's Azure environment, identifying dependencies and designing a migration plan tailored to their needs.

- **Infrastructure Migration:** Using AWS Migration Hub (MGN), TrueMark transitioned LinkTrust's virtual machines, databases, and network configurations to AWS while ensuring data integrity.

- **Load Balancer Optimization:** Replaced existing load balancers with AWS Elastic Load Balancers (ELB) to streamline workload distribution and improve performance.

- **Billing Restructuring:** Implemented AWS Cost Management tools for granular visibility into resource usage, enabling precise budget planning and cost savings.
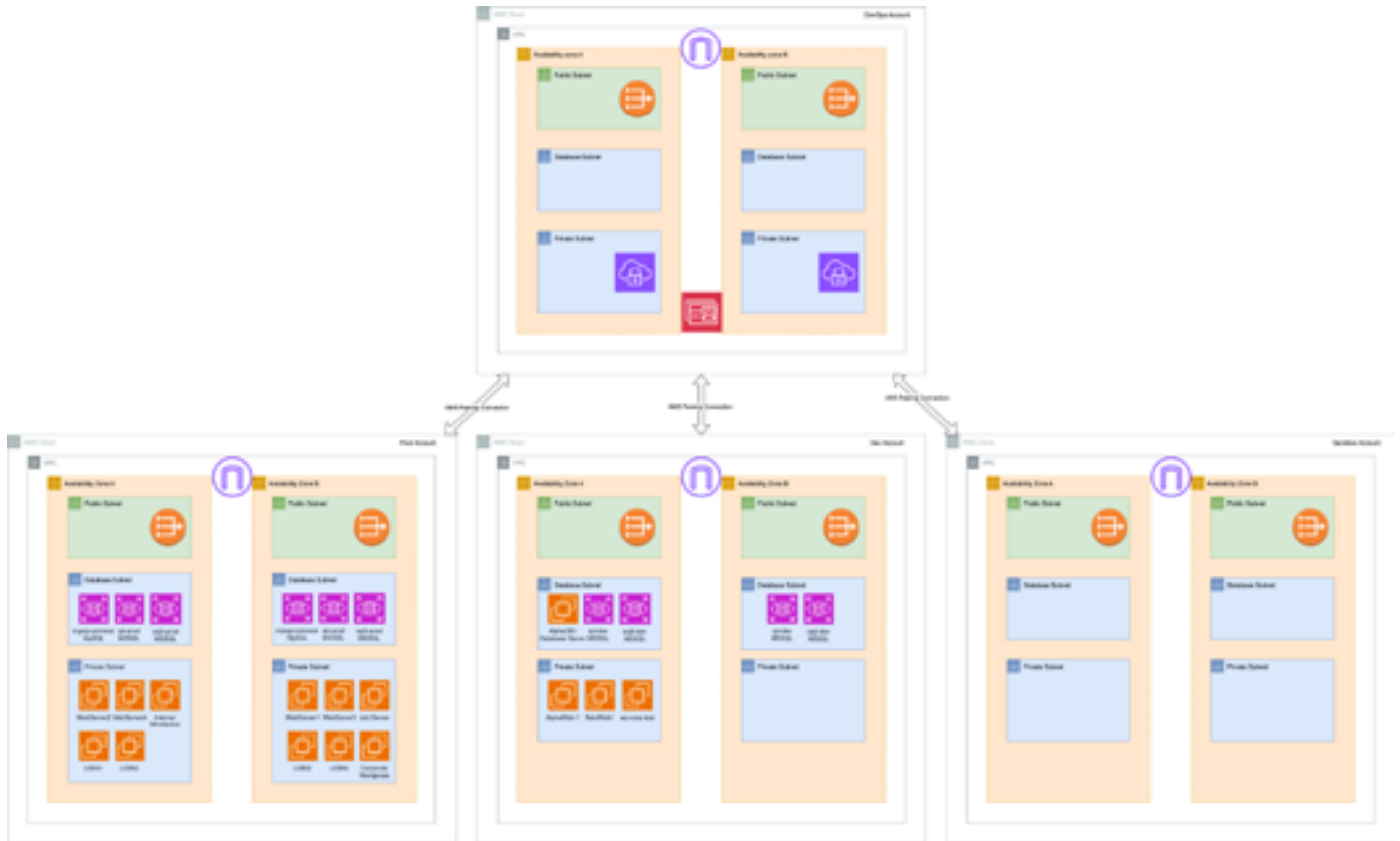
Fig 1: Architectural diagram of proposed solution

# Results and Benefits

The migration to AWS resolved LinkTrust's key challenges, delivering significant operational improvements:

- **Enhanced Availability:** AWS's robust infrastructure and fault tolerance mechanisms eliminated previous availability issues, reducing downtime and restoring customer trust.

- **Optimized Load Balancing:** AWS ELB ensured even workload distribution, improving application performance and user experience.

- **Billing Transparency and Savings:** Granular insights into cloud usage and costs allowed LinkTrust to reduce unnecessary expenses and achieve a 20% reduction in operational costs.

- **Scalability and Future Growth:** AWS's flexible and scalable environment provided the capacity to support LinkTrust's future growth without compromising performance.

## Key Metrics

- **Service Uptime:** Increased to 99.99% after migration.

- **Cost Savings:** Achieved a 20% reduction in monthly cloud expenditures.

- **Customer Trust:** Increased customer retention rates due to improved service reliability.

# About TrueMark

TrueMark, an IT Solutions provider and AWS Advanced Tier Partner, excels in guiding companies through the intricacies of migrating, modernizing, managing and supporting their IT Systems within AWS. We deliver key benefits to our customers, including improvements in efficiency, consistency, reducing cost, scaling systems, and security. Our competitive advantage stems from our skilled professionals, providing them with the resources they need to successfully tackle challenging projects and create sustainable, reusable patterns, tools and automation. At TrueMark, our commitment is to consistently deliver substantial value to our customers and to always act in their best interest, ensuring that our solutions not only meet but surpass expectations.

Want to learn more? Visit **https://truemark.io**
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