Legacy System Migration to AWS

Slide 1 – Title Slide
Hi, I’m Tatenda Manyepa and I am going to be walking you through a cloud architecture solution proposal that is focused on migrating a legacy on-premises e-commerce system to AWS.

Slide 2 – Problem Statement & Objective
The current system faces major challenges: manual patching, limited scalability, high infrastructure costs, and performance delays.
The goal of this proposal is to move core infrastructure to AWS for better scalability, automation of operations using native aws services, and strengthening of security and observability.

Slide 3 – Current System Architecture
This is the legacy setup. It’s built on a rigid on-premises infrastructure, which limits performance and scalability during peak periods and lacks cloud-native capabilities.

# Slide 4: The Architecture Diagram

This is the proposed architecture which is built for high availability and performance. It spans accross two Availability Zones, with Application Servers and Automation Control Servers hosted in private subnets behind an ALB. These servers are deployed using Auto Scaling Groups for scalability.

Amazon RDS provides a resilient backend with Multi-AZ support, while ElastiCache improves performance by offloading frequent queries.

Monitoring is handled by CloudWatch, GuardDuty, Config, and Security Hub while data is backed up using AWS Backup and archived in S3 Glacier. The system also integrates securely with the customer's host system."

Slide 5 – Key AWS Services
To modernise the system, I propose using Terraform for infrastructure provisioning, AWS DMS for database migration, and hosting the application and automation servers on EC2 instances, with data stored in Amazon RDS and accelerated using ElastiCache.

I also propose using services like IAM and WAF to provide security and CloudWatch and Systems Manager to monitor and manage resources.

Slide 6– Business Value & Outcomes
The new architecture offers enhanced scalability, security, and cost-efficiency.
It reduces manual effort through automation, supports business growth, and delivers better performance across environments.

Slide 7 – Closing
I hope this project demonstrates my ability to translate complex technical challenges into practical, scalable AWS solutions. Thank you for taking the time to explore my portfolio. Please feel free to reach out if you’d like to learn more or discuss potential opportunities.