



Guaranty Pension Managers



Title: Migration of On-Premise Workload for Financial Institution to AWS Lagos Local Zone for Data Residency Requirements : A Case Study of GT Pensions Managers

1. Introduction

In an era of evolving digital landscapes and stringent data residency requirements, financial institutions are faced with the challenge of migrating their on-premise workloads to cloud environments that comply with local data regulations. This case study explores the successful migration of GT Pensions Managers' on-premise workload to the Lagos Local Zone, enabling them to adhere to data residency regulations while improving scalability, security, and operational efficiency.

2. Background

GT Pensions Managers, a leading financial institution in Nigeria, manages pension funds and investments for clients nationwide. To enhance customer data security and comply with local data residency laws, GT Pensions Managers decided to migrate their on-premise workload to a secure cloud environment within the Lagos Local Zone, ensuring that customer data remains within Nigerian borders.

3. Challenges



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GT Pensions Managers faced several challenges in their on-premise infrastructure, including limited scalability, high maintenance costs, and concerns about disaster recovery. They wanted to enhance their infrastructure by migrating to AWS Cloud. Additional challenges included:

- **Downtime Minimization:** Minimizing business disruption due to downtime of IT assets. Any downtime could affect their employees' productivity and customer satisfaction.
- **Data Residency Compliance:** GT Pensions Managers needed to comply with the data residency requirements mandated by Nigerian regulations, ensuring that customer data is stored within the country.
- **Scalability:** The organization required a scalable solution to accommodate growing data volumes and ensure seamless business operations.
- **Security:** Data security was a top priority. GT Pensions Managers needed a solution that provided robust security features to safeguard sensitive customer information.
- **Operational Efficiency:** Improving operational efficiency and overall customer experience.

4. Solution

GT Pensions Managers partnered with CloudPlexo, a leading cloud service provider, to migrate their on-premise workload to the Lagos Local Zone. The solution included:

Planning and Assessment:

- Conducted a thorough assessment of the existing infrastructure to understand dependencies, configurations, and security requirements.
- Developed a detailed migration plan outlining the step-by-step process, timeline, and rollback procedures.

AWS Architecture Design:

- Designed a highly available and scalable architecture on AWS within a Virtual Private Cloud (VPC).

Migration:

- The CloudPlexo migration team meticulously planned and executed the transfer of on-premise servers to the cloud, ensuring data integrity and security throughout the process leveraging AWS MGN.



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- Securely migrated Microsoft SQL Server, Microsoft IIS Server, Microsoft Active Directory data, ensuring data integrity and consistency during the migration.
- Implemented robust data encryption methods to safeguard sensitive information in transit and at rest.

Comprehensive Security Measures:

- The team implemented advanced security protocols, including encryption, identity and access management, and regular security audits to protect customer data.

Compliance Assurance:

- The CloudPlexo Team working with the AWS team ensured that the infrastructure within the Lagos Local Zone complied with Nigerian data residency regulations, providing GT Pensions Managers with a compliant and secure environment.

Testing and Validation:

- Conducted rigorous testing, including failover scenarios and load testing, to validate the functionality and performance of the Migrated servers
- Collaborated with stakeholders to ensure that all applications and services dependent on Active Directory seamlessly transitioned to the cloud environment.

Deployment and Optimization:

- Executed the migration plan in stages, closely monitoring each step to address any issues promptly.
- Utilized AWS Systems Manager, AWS CloudWatch, S3 and AWS Config to monitor the performance of the Windows Domain Controllers, optimising configurations and patching automation for maximum efficiency.

Governance and Backup:

- Cloud Governance was implemented utilizing AWS Control Tower
- CloudFormation was used to deploy custom service controls
- AWS Backup Service was used to backup for DR.



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5. Results

The migration from on-premise to AWS yielded significant benefits for GT Pension Managers:

- **Improved Scalability:** The AWS-based infrastructure allowed GT Pensions managers to scale their resources on-demand, accommodating business growth without compromising performance.
- **Enhanced Reliability:** Leveraging AWS's global infrastructure, GT Pension Managers achieved higher availability and reliability, ensuring uninterrupted services for employees and customers.
- **Cost Efficiency:** By migrating to AWS, GT Pension Managers reduced their operational costs significantly, eliminating the need for expensive on-premise hardware and maintenance.
- **Streamlined Management:** Utilizing AWS managed services simplified the management of infrastructure, allowing IT teams to focus on strategic initiatives rather than routine maintenance tasks.
- **Enhanced Security:** AWS's robust security features, coupled with GT Pensions managers adherence to best practices, ensured the security and compliance of sensitive user data.
- **Data Residency Compliance:** GT Pensions Managers achieved full compliance with Nigerian data residency laws, ensuring that customer data remained within the country's borders.
- **Enhanced Security:** The cloud environment offered advanced security features, reducing the risk of data breaches and ensuring customer trust and confidence.
- **Operational Efficiency:** The seamless migration process minimally impacted ongoing operations, ensuring business continuity and customer service excellence.



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6. Conclusion

The successful migration of GT Pensions Managers' on-premise workload to the Lagos Local Zone not only ensured compliance with data residency regulations but also enhanced data security, scalability, and operational efficiency. By embracing cloud technology, GT Pensions Managers positioned themselves as a forward-thinking financial institution, capable of meeting regulatory requirements while providing excellent services to their clients. This case study serves as a testament to the importance of strategic cloud migration for businesses aiming to achieve compliance and operational excellence in the digital age.