Streamlining Data Export Process for Improved Customer Satisfaction

How ZenQMS successfully provided data export automation for customers, by leveraging Lambda, Glue workflows and S3 buckets with NETSOL Technologies.

Company Highlights

ZenQMS is a software platform designed to help organizations manage their quality management systems (QMS) streamlined, efficient, and compliant manner. The platform is primarily used by companies in highly regulated industries, such as pharmaceuticals, medical devices, and biotechnology, where quality management is critical for ensuring product safety and regulatory compliance.

Company name: ZenQMS   **Industry:** Technology

Location: USA   **Status:** Public

Website: https://www.zenqms.com/

Challenges

Accessibility of data to ZenQMS customers **1** | **2** Manual effort on data extraction for customers

Solution

1. Using Terraform scripts to provision infrastructure
2. The CloudWatch Event Rules were used to trigger a Lambda function for Glue Workflows
3. Glue Workflows were initiated with configurations for one or more elements
4. Glue Jobs were required to submit export queries for one or more elements
5. Subsequently, the exported data on CSV files in the respects S3 path, was converted into a zip file
6. A Notification job advanced an email with a pre-signed URL to the S3 zip file
7. In case of a complication, prompt alerts were sent out to respective stakeholders

aws PARTNER
- AWS CloudFormation Delivery
- Amazon API Gateway Delivery

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Outcomes

Successful implementation of an automated data export process while managing access to specific data

This automated process helped ZenQMS to achieve and deliver improved services to their users, enhancing customer satisfaction

Reduced manual efforts effectively

Lessons Learned

1 In order to avoid untimely URL expiry causing data inaccessibility, all AWS pre-signed URLs must be generated through IAM user credentials.

2 For the job to run in a Private subnet with connection to a Private RDS, the NAT gateway is required for connection to Glue boto3 Client.

3 AWS Glue Python Shell jobs have issues with psycopg2 Library, therefore, pg8000 library had to be used for connection with Aurora.