# Status Report for Jacob A Biguvu

For the month of Jan, 2019

### Client & Line of Business : Capital One / Commercial

### Team/Project : CDSE – Commercial Data Strategy & Engineering

### Role : DBA/Database Engineer/Data Modeler / Cloud

**Primary DBA** for the databases of the Five Applications (application details are provided in Annexure-A) and **Standby DBA** for 100s of databases relating to other commercial related applications.

Line of Business has 100’s of databases on on-premises environment as well as Amazon Web Services (Cloud Technologies). The databases are in technologies such as ORACLE, SQL Server, PostgreSQL, AWS RedShift, MySQL, SnowFlake, DynamoDB and others.

### Typical and daily tasks:

As an Application Database Administrator, **my typical and daily tasks** include a combination of the following activities on demand or planned. I do work with the Application team, developers, testers, data architects, Unix and Network administrators as require. I do receive all requests from the team and provide on demand support on daily basis and meet the target goals.

**Databases on-premises/cloud maintenance:**

* Performing Health-check for all databases and monitoring to ensure High Availability precautions
* Capacity Assessment: CPU, Memory, Storage, IO using the native and 3rd party tools for the databases

**Application/Production Support**

* Database Changes such as schema structure changes, table structure, columns, Create database objects (tables, indexes, etc.) in pre-production and production. Manage the process to promote database objects to production; Develop database procedures, functions and triggers
* Analyzing database performance using native tools and reporting. Providing troubleshooting and resolution if there are performance issues.
* Working with the Application team on optimizing SQL queries and ensure to use the minimal resources
* Automate database tasks
* Involving database design, architecture decisions
* Production fixes and troubleshoot
* Testing the code in pre-production and taking to production
* Installing the code through change management
* Manage the process to define physical database design changes for production environments, get required approvals, and engage production DBA resources to perform the changes
* Create and maintain logical and physical data model designs
* Using HPSM & ServiceNOW tools for change management for tracking changes
* Using JIRAH/Kanbun tools for tracking the tasks and activities
* Other tasks include from the below as demand

**Migration Support from On-premises to Cloud Technologies:**

* Moving On Premise to the Cloud using AWS or Azure
* Build scripts in Python and Powershell, GitHub, CD/CI pipelines to Cloud.
* Provide mentoring for database Delivery team
* Working with DBA team on developing CI/CD pipeline for Cloud
* Developing Infrastructure Automation, including: strategies for environments, scaling and monitoring/alerting as well as defining the roles and permissions to facilitate DBautomation.
* Participate and contribute to cloud architecture discussions including what database technologies to use, how many environments are needed and what resources need to be in these environments.
* Performance tune and monitor databases in the Cloud to understand how to appropriately size and manage costs
* Outline ongoing maintenance tasks for the cloud databases and define a RACI model for supporting them
* Empowering DBA team members to deliver systems with database architectures within the Azure cloud.

**ANNEXURE-A: APPLICATION DETAILS**

* **Advanced Commercial Banking System (ACBS)**: ACBS is the DataMart consists of all the commercial loan information of large scale businesses. The major role of ACBS is to prepare the data to the DDE team and Business Objects team – **No. of databases: 5** (including 1 production + 4 pre-production databases)
* **Commercial Risk Rating Platform (CRRP):** CRRP is OLTP application that provides a dual risk rating framework to measure and manager credit risk. – **No. of databases: 5** (including 1 production + 4 pre-production databases)
* **RiskAnalyst MOODY (RA Moody):** RA Moody is an application control management and tool for the collection and analysis of historical and projected financial performance of a borrower or prospect. It analyzes the company’s financial statements, examine cash flow and ratios as well as perform comparisons with industry peers. – **No. of databases: 5** (including 1 production + 4 pre-production databases)
* **Payment Infrastructure Engine (PIE):** PIE delivers a single solution for consolidated International & Domestic wire transfers– **No. of databases: 5** (including 1 production + 4 pre-production databases)
* **Intellix:** Intellix is an application provides sophisticated gateway with more secure and streamlined account management tools– **No. of databases: 5** (including 1 production + 4 pre-production databases)
* **Payment Infrastructure Engine (PIE):**

PIE delivers a single solution for consolidated International & Domestic wire transfers – **No. of databases: 5** (including 1 production + 4 pre-production databases)