SRIDHAR ANBUSELVAN

AWS | Data Architect
Cognizant Tech Solutions

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ORACLE® Certified Associate   aws certified Solutions Architect Associate   aws certified Database Specialty   aws certified Data Analytics Specialty

Software Professional with a total of 15+ years of experience, currently working as an **AWS Data Architect** and have almost **13+ years** of experience in design and development of **Oracle RDBMS** applications with a strong grasp of **Database Design, Programming, Development and Implementation of DB Client-Server Applications mostly** using Oracle 9i /10g /11g/12c in both OLTP & Data warehousing applications.

• **Onsite Experience**:
⇨ Charlotte, North Carolina, US (2 Years)
⇨ Jacksonville, Florida, US (3 Years)

💼 TOOLS & TECHNOLOGIES

Databases	Oracle, PostgreSQL, MS SQL Server, Greenplum, Teradata & Timesten(in-memory)
AWS Cloud	AWS EC2, S3, SCT, DMS, RDS, Redshift, Aurora, Glue, Lambda, AWS DynamoDB, DocumentDB, Kinesis Datastreams, Kinesis Firehose, AWS EMR, AWS Apache Airflow, ElastiCache, ElasticSearch
Data Migration	HVR and AWS DMS
Programming	Shell Scripting, PySpark, Python
Reporting Tool	BIRST, Jasper, Microstrategy & Business Objects
Scheduling	Autosys
Other Tools	Sysbench (DB Benchmark Tool), TOAD, SQL Developer, Eclipse, Quality Center, SVN, JIRA & Clearcase

EXPERIENCE SUMMARY

Nov 2021 to PRESENT 3 Months	**ARCHITECT** Cognizant Technology Solutions
Dec 2017 to Nov 2021 4 Years	**LEAD CONSULTANT** Virtusa Corporation
May 2006 to Nov 2017 11 Years & 6 months	**ASSISTANT CONSULTANT** Tata Consultancy Services Limited

ACADEMIC PROFILE

July 2002 to May 2006	**B.Tech – Information Technology** **Government College of Technology Coimbatore**

WORK SUMMARY:

- Involved in **project planning, data modeling, database design and implementation** phase.
- Developing the **database architecture blueprints** based on the business key requirements.
- Assessment of the customer data workloads and technology landscape for the cloud suitability and develop the required business case with the cloud adoption roadmap.
- Provide suggestions to customers to move from traditional database systems to migrate and evolve in the new **cloud technologies**.
- Executing Proof of concepts to help the customers overcome the technical complexities by leveraging the appropriate cloud services.
- Development of PySpark scripts for AWS Glue Programming to improve performance of long running scripts.
- Worked extensively in both **homogenous** and **heterogeneous** database migrations.
- Experienced in AWS Cloud migration – Re-hosting and Re-platforming.
- Involved in configuring the **AWS EC2 instances, RDS Aurora MySQL, RDS Aurora PostgreSQL Database** and EC2 Oracle database and setting up the Security groups.
- Experienced in creating **DMS Replication Instances, Endpoints and DMS Tasks** to perform database migrations.
- Used **DMS** for one-way replication and **HVR tool** for performing bi-directional replications.

- Experienced in creating different types of **AWS S3** buckets based on business requirements.
- Experienced in developing ETL based job orchestration processes in Autosys and AWS Cloud solutions including **CloudWatch + Lambda, AWS Managed Apache Workflow, AWS Step Functions** and **AWS Glue.**
- Implementation of the **high availability** and **disaster recover** strategies for the database systems as per the customer demand.
- Experienced in setting up the encryption, AWS VPC and Security groups.
- Used **SYSBENCH** utility to perform database bench marking activities.
- Expert in using batch scheduling tool like AUTOSYS.
- Experienced in providing Data Extraction, Transforming and Loading (ETL) solutions.
- Experience with **Data flow diagrams, Data dictionary, Database normalization theory techniques, Entity relation modeling** and **design techniques.**
- Developed Complex database objects like **Stored Procedures, Functions, Packages and Triggers using SQL, PL/SQL and pgPL/SQL.**
- Expertise in Client-Server application development mostly using Oracle **11g/10g/9i/8i, PL/SQL, SQL *PLUS, TOAD** and **SQL*LOADER**.
- Worked extensively on **Table Partitioning, Ref Cursor, External Tables**, **Collections, Dynamic SQL and Materialized Views**.
- Performed **Optimization** and **SQL query tuning** to improve/resolve any performance related issues identified during the course of the project delivery.
- Worked in **Shell Scripts/Python Scripting** for invoking SQL scripts and scheduled them using AUTOSYS
- Experienced in Software development models such as Agile, SCRUM and Water Fall methods of SDLC.
- Worked extensively in **Investment Banking** domain.

KEY PROJECTS

ECOSYS - AWS DATABASE FREEDOM (VIRTUSA - JPMC)

ROLE: AWS DATA ARCHITECT

JPMC Investment Banking group has an internal web scrapping application which downloads webpages from different internet websites, performs business analysis on the pages, parsing it for necessary transformations and loads it into the Oracle Database. Around 1000s of Autosys jobs are being scheduled weekly/monthly using python and shell scripts. This functional unit as a whole is being migrated to AWS Cloud.

HIGHLIGHTS

- Responsible for launching and setting up AWS Services – **Aurora MySQL**, AWS SCT, Security group configuration and Endpoint creation.
- Involved in Development of PySpark scripts for the Glue jobs to improve the performance of long running python scripts.
- Implementation of Job Orchestration using AWS Step functions setup with AWS Lambda + AWS Glue jobs.
- Perform migration of Oracle 12c database to AWS Aurora MySQL database.
- Almost 500 GB of data is planned to be migrated from on-premise Oracle database into the Cloud.
- One-time migration of data files using the approach of saving to S3, triggering the lambda function, applying business rules and performing transformations using Glue before loading the data into RDS.
- Implementation of High Availability and Multi AZ setup for the RDS database.

AWS DATABASE FREEDOM (VIRTUSA - ENVERUS)

ROLE: AWS DATA ENGINEER

As part of the AWS Database Freedom program, this was the second database migration assignment at Virtusa. A couple of OLTP applications were planned to be migrated from On-premise Oracle database to AWS Aurora PostgreSQL.

HIGHLIGHTS

- Responsible for launching and setting up AWS Aurora- PostgreSQL, AWS SCT & HVR, Security group configuration and Endpoint creation.
- Worked on migrating the Oracle database to AWS Aurora PostgreSQL 12.4 database for this project activity. Addressed various migrations issues/limitations at AWS PostgreSQL using suitable alternate methods.
- Used both partition by inheritance and declarative partitioning concepts in AWS Aurora to address the Oracle partitioning tables.
- Implementation and scheduling of the Materialized View refresh at the PostgreSQL was a bigger challenge. POC was done on each of the below items -
  - AWS EC2 (pg_cron), AWS Lambda and AWS Batch was examined for addressing this problem but not taken forward due to limitations with cost and maintenance.
  - Final POC solution was to have the jobs scheduled using AWS Glue.
    - Create jobs using AWS Glue Jobs
    - Schedule using AWS Glue Triggers
    - Execute the python script kept at AWS S3
    - Python script connects to PostgreSQL and calls the materialized view refresh process.
- Involved in re-clustering the table data for creation of BRIN index to optimize the queries.
- Out of 8 TB, almost 5 TB of data was attributed for Index Storage at Oracle, identified unutilized indexes as part of the migration process and recommended to remove it based on business criticality.
- Performed bi-directional replication using the HVR Tool (similar to AWS DMS) from On-premise Oracle to AWS Aurora PostgreSQL.
- Worked on PgBench utility and involved in doing bench marking for the AWS Aurora PostgreSQL database as part of load testing.

MEASUREMENT ANALYSIS & PLANNING (TCS - BOA)

ROLE: DB TECH LEAD

Notable opportunity with the TCS Bank of America, this was a migration/enhancement project from MS SQL Server to Oracle. First project where the development started from the scratch work.

HIGHLIGHTS

- Code migration from MS SQL Server to Oracle 11g datawarehouse. Worked on implementing several features like Virtual Columns, Partitioning, Procedures, Packages and Materialized View objects.
- Worked on Python and used it as a scripting language as most of the development team were from the Java background.
- Implemented Job Scheduling using the Autosys utility to executed the Oracle Load jobs. Microstrategy was used for the Analytics and Reporting purposes. Worked on optimizing SQL for the reporting layer.
- MS SQL Server was doing a number of file processing activities (few sources were traditional files from Upstream), have remediated these to Python scripting layer and solely attempted to use the Oracle for storage purpose improving the DB performance.

NAVIGATOR (TCS - BOA)

ROLE: ORACLE DB TECH LEAD

Critical assignment at the TCS Bank of America, this was a blend of the customer's classical applications into one complete application. This included new applications from Merrill Lynch as a result of its merger with Bank of America.

HIGHLIGHTS

- Decision making opportunity to customer about establishing communication between different applications like usage of DB links, file exports.
- With this OLTP development, have implemented features like Exchange Partitioning and loading/mirroring live online tables.
- Scheduling was done using the Autosys utility to run the Oracle Load jobs from the background and Unix shell scripts to trigger the Oracle jobs.
- Selected as the TCS Best Project under Top Ten Applications for the year 2011.

PROJECT TIMELINES

COGNIZANT

NEXTERA ENERGY (AWS DATA ARCHITECT)

EDP BLUEFLAMES MIGRATION

(NOV 2021 – PRESENT)

VIRTUSA

JPMC (AWS DATA ARCHITECT)
ECOSYS AWS MIGRATION
(JUL 2021 – NOV 2021)

ENVERUS (AWS DB MIGRATION SPECIALIST)
AWS DATABASE FREEDOM
(AUG 2020 – JUN 2021)

ELI LILLY (AWS DB MIGRATION SPECIALIST)
AWS DATABASE FREEDOM
(OCT 2019 – JUL 2020)

INFOR (DATABASE QUALITY ANALYST)

DATA PROFILING AND CLEANSING
(NOV 2018 – SEP 2019)

CITIBANK (DATABASE TECHNICAL LEAD)
GENERIC ARCHIVAL PROCESS
(DEC 2017 – OCT 2018)

TCS

BANK OF AMERICA (DATABASE LEAD)
MEASUREMENT ANALYSIS & PLANNING
(APR 2013 – NOV 2017)

BANK OF AMERICA (DATABASE LEAD)
NAVIGATOR (JUL 2009 – MAR 2013)

QANTAS AIRWAYS (JUNIOR DEVELOPER)

MEDIUM FORECAST (JAN 2009 – JUL 2009)

CISCO SYSTEMS INC (JUNIOR DEVELOPER)
MBR DISTI, FIELD DATA ENRICHMENT, PDB-SFDC INTEGRATION, BREES, OPPORTUNITY INCENTIVE PROGRAM (SEP 2006 – DEC 2008)

ACHIEVEMENTS

- TCS Certified Level 1 Performance Engineer
- Oracle Certified Associate 9i
- AWS Certified Solutions Architect – Associate
- AWS Certified Database – Specialty
- AWS Certified Data Analytics – Specialty

REWARDS AND RECOGNITIONS

- Best performer of Bank of America – Navigator application 2011 development team which was ranked
  - **TOP TEN** application for the year at **TCS**.
  - **TOP FIVE** application for the year at **Bank** level.
- Served 5+ years of experience working as an Oracle – Technical Lead at Client location (**USA**).