AWS Windows Competency
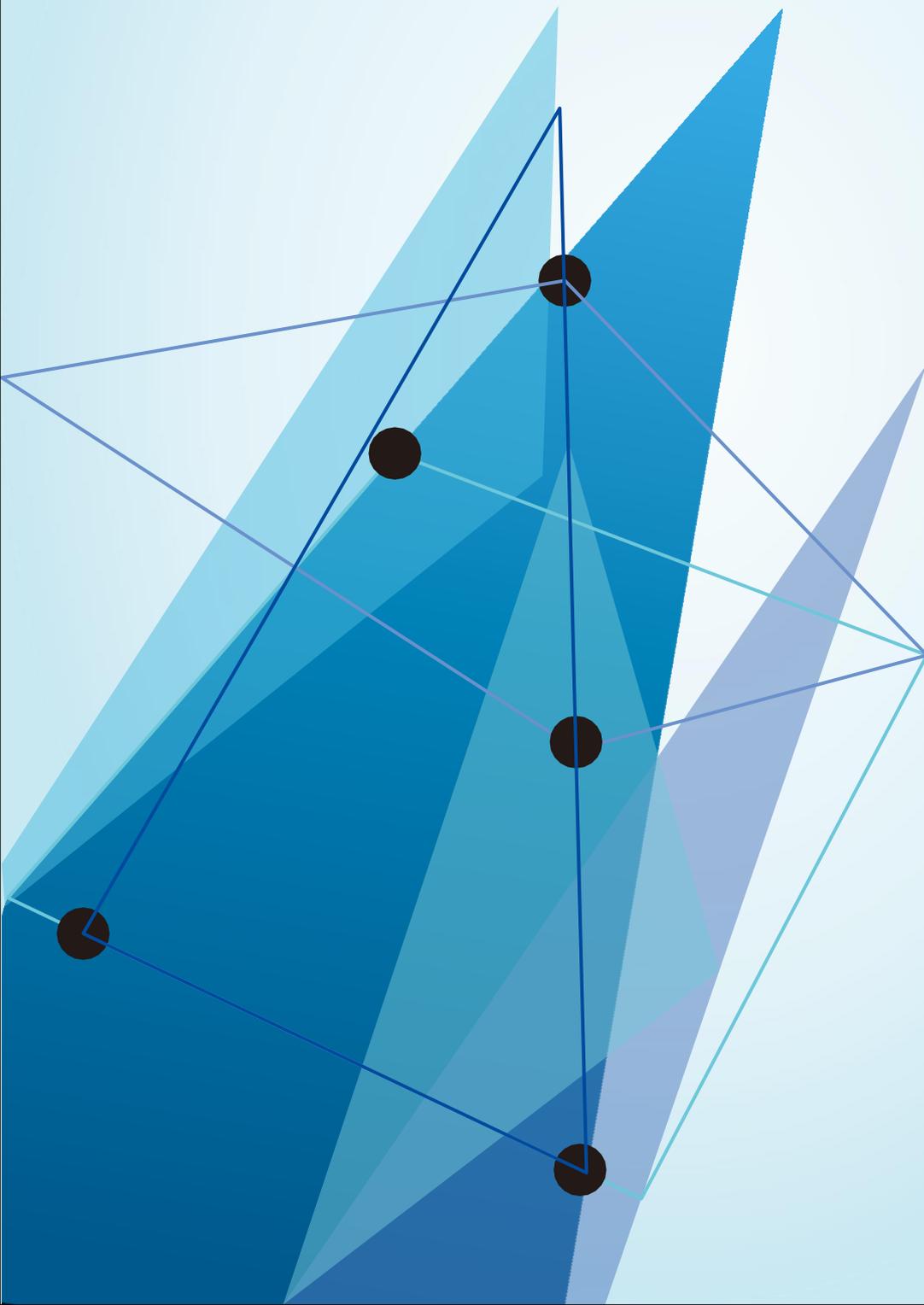# ERP PROVIDER
By
ORIENT TECHNOLOGIES PVT. LTD.

EXECUTIVE SUMMARY

Founded by 3 technologists with more than 75 years of collective experience in India and the US. Privately owned, financially stable and consistently profitable each fiscal. Endeavors to provide a stable and consistent long term service experience to customers. Aspires to provide a free and Innovative conducive environment and inspire a highly professional work ethic that focuses on customers. Vision is to be a global supplier of enterprise software solutions to financial organizations using our forte'- leading-edge technology expertise. Deliver Excellent, Creative and Cost-effective solutions using the most appropriate technologies, enabling the business to manage their customers effectively. As they had frequent SLA breaches and MS SQL working very slowly, they decided to go on Cloud with AWS Windows Database Workloads.

CUSTOMER CHALLENGES

- ➢ Microsoft SQL Server which was procured from the Service provider comes with a commitment of 2 years and leads to constricting in terms of development and usage.
- ➢ Upscaling or development used to be Restricted and tedious on existing hardware.
- ➢ Considerably high query Execution time takes up to 60-100 seconds per query
- ➢ Very high Backup time: - moderate 50-100 GB of Data backups using traditional tape backup method took approximately 2-3 Hrs.
- ➢ Logistic ERP developed in .Net and hosted on VM by a third-party service provider having frequent internet and network outages, therefore, SLA breached up to by 4 hrs.
- ➢ The logistic business was growing at a rapid rate and cannot withstand frequent SLA breach and not worth sticking to the existing environment or adding one or more machines.

AWS SERVICES USED

- AWS Elastic Compute Cloud (EC2) Windows + Windows MS SQL 2016
- AWS Simple Storage Service (S3)
- AWS Lambda
- AWS Virtual Private Cloud (VPC)

- Identity and Access Management (IAM)
- AWS Cloud Watch
- Route 53
- Elastic Load Balancing (ALB)

PROPOSED SOLUTION

- Windows MS SQL is used with the upgrade i.e version 2016 to achieve reliable and improved performance.
- Automate encrypted S3 backup schedule for MS SQL using AWS Lambda.
- As and when the business demands, proposed Cloud environment can be vertically scaled up.
- Automate Schedule Backup of the AMI using the Lambda function.
- Cloud endure used to migrate from source to AWS environment.

Microsoft Apps & Services: Microsoft SQL Database 2016 and Microsoft IIS.

Operating System: Microsoft Windows 2019 & Microsoft Windows 2012.

Database Server: Microsoft SQL Server 2016 Standard and Web

PROJECT DURATION

Start Date: 13-July-2019

End Date: 30-Jul-2019

RESULT / OUTCOME

- ➢ MS SQL 2016 database in AWS environment gave robust and much better performance than the earlier environment.
- ➢ Also in AWS, the MS SQL 2016 database upgraded to the latest version which removed the lock-in of sticking to the existing environment. The System could be scaled when required to increase processing and user loads during planned intervals. Autoscaling was not required as Client only had planned workloads intervals.
- ➢ Minimum time for any query (irrespective of complexity or data requested) execution reduced to 20-30 seconds on average.
- ➢ AMI snapshots (backup) in the encrypted format within 0.6-1 hr.
- ➢ AMI Restoration to a new EC2 instance can be done in 5 minutes and demonstrated.
- ➢ On the AWS environment, availability and reliability percentage of uptime jumped to as high as 93.99%.