



Case Study: Oracle on AWS for

Electronic Document Records Management (EDRM) System

Customer Challenges

NuCore Solutionz was challenged with managing large amounts of physical boxes of file records containing sensitive information including financial and personal identifiable information (PII). The boxes were piled high in expensive office space in the Washington, DC metropolitan area, fully consuming the designated space and making the information contained difficult to access.

Challenges and Issues Solved:

- Inefficient searching for information
- High risk of errors processing financial transactions
- High cost of storage
- Physical capacity constraints

Normal processing included the following steps. The client's analyst would request a physical copy of a record(s). The physical records could take days before they were available. Once the physical file was delivered on-site, the analyst would have to read through numerous documents to locate the necessary information. Finally, the analyst would manually enter the required information into their business application, creating a high risk for incorrect data. This process was plagued with stops, starts, and corrections causing a significant backlog.

Aderas Technical Solution

Aderas implemented Oracle's WebCenter Content Management on AWS using an architecture of EC2 instances and supporting components of Elastic Block Storage (EBS) and Elastic Load Balancers (ELBs). While the AWS Relational Database Service (RDS) was considered, RDS did not support, at the time, Oracle's Repository Creation Utility (RCU) required to install the WebCenter products. The development / test environment was configured with a single Oracle WebLogic server and a single Oracle database server installed on AWS EC2 instances. The production environment has two independent WebLogic servers with user traffic split by an AWS ELB. The production database is also on the EC2 platform, but the primary database is synchronized with a secondary database using Oracle Data Guard for disaster recovery. Additionally, the production environment has Oracle's Automatic Storage Management (ASM), but the development environment uses the native storage interface of the Oracle Enterprise Database.

Products Used:

- Oracle WebCenter Content using Oracle WebLogic and the Oracle Enterprise Database, Oracle Automatic Storage Management (ASM), Oracle Data Guard
- Amazon Web Services (AWS) Elastic Compute Cloud (EC2), Elastic Block Storage (EBS), Virtual Private Cloud (VPC), and Identity and Access Management (IAM))

Results and Benefits

With over 16,000 records available via secure internet connection from customer to AWS, the client analyst could access the data via a virtual private network (VPN) using their credentials. The uploaded files fields were metadata tagged so the analyst could quickly locate the required information in large documents that included hundreds of pages. The processing time and handling of documents improved through multiple analysts accessing the same record without disturbing the work of others. The client immediately recognized a return on investment (ROI) by streamlining the analyst process and reducing existing costs. Despite a customized solution on the Oracle platform, the customer experienced no additional licensing costs by leveraging an existing Oracle enterprise agreement. Also, the system eliminated physical space requirements and the AWS cost was a fraction of the physical storage costs.

Results Achieved:

- Reduced search time by 50% utilizing the indexed fields
- Improved accuracy of document handling by 15% using the central digital portal in AWS
- Provided 70% savings in monthly fees by removing the need for physical storage



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