



## Case Study: Oracle on AWS for Multifamily Securities Investor Access (MSIA)

### Customer Challenges

FI Consulting was tasked to create a single application for both external investors and internal stakeholders of a financial institution that could provide users the ability to analyze deals and portfolios comprised of securitized and non-securitized loans. Although the data was available from other disparate sources, a centralized tool allows the customer to share information with investors and potential investors about all of their securities and increase investor confidence in the securities being held by the customer.

#### Challenges and Issues Solved:

- Disparate sources for analyzing investment portfolios and loans
- Cumbersome process to review data and formulate custom calculations
- Lacked electronic method to disseminate content securely

### Aderas Technical Solution

As a pilot project in 2011 supporting FI Consulting, Aderas created the Multifamily Securities Investor Access (MSIA) as a web-based application, developed on an Oracle Application Express (APEX) framework, and supported by an Oracle Database - Enterprise Edition. The application is hosted on Amazon Web Service (AWS) Elastic Compute Cloud (EC2) instances. Since the application did not have high availability requirements, Aderas designed a cold backup site for Disaster Recovery. The Elastic Block Storage (EBS) snapshots and backups are stored in an alternate AWS Region. In the event of a failure in the primary region, Aderas would use the snapshots and data files to restore the servers and the associated applications.

When MSIA was first deployed on AWS in 2011, the services available were not as advanced as they are today. The MSIA application was deployed in the network configuration now known as EC2 -Classic and used m1 type servers. While AWS continues limited support for EC2-Classic, the security and maintenance improvements of the AWS Virtual Private Cloud (VPC) configuration is significantly better. Furthermore, the m1 instances remained supported and available, but the project began to suffer more frequent notifications of future outages for the m1 instances. As part of our ongoing maintenance and support, MSIA has been updated to use VPC and current generation instance types.

#### Products Used:

- Oracle Application Express (APEX), Oracle Database Enterprise Edition
- Amazon Web Services (AWS) Elastic Compute Cloud (EC2), Elastic Block Storage (EBS), EC2-Classic, Virtual Private Cloud (VPC), and Identity and Access Management (IAM)

In addition to technical refreshes and support, Aderas provides periodic functional updates based on changing requirements and business processes. Each release has been delivered with the requested functionality on-time and within budget.

### Results and Benefits

MSIA provides over 330 external investors and internal stakeholders with the ability to analyze structured mortgage-backed securities and the underlying loans and collateral. The simplified solution provides investors the functionality to export any of the data, streamlining the ability to formulate custom calculations using Microsoft Excel. The customer also realized additional benefits of the centralized system. MSIA enables the customer to fulfill their contractual responsibilities more easily by disseminating content to the investment security stakeholders in a secure manner.

While not a complicated architecture, the MSIA project demonstrates the value of matching a rapid application development (RAD) tool and the speed and flexibility of the AWS platform. For this customer, the AWS operating environment provides reliable and accurate information that is accessible globally, powerful and low-cost backup and disaster recovery capabilities, and alignment with the customer's software as a service (SaaS) approach for business applications.



A Small Business Incorporated in 2004  
DUNS: 162846229  
CAGE: 313M8

11911 Freedom Drive  
Suite 580  
Reston, VA 20190

[www.aderas.com](http://www.aderas.com)  
(703) 230-0646  
[info@aderas.com](mailto:info@aderas.com)

### Corporate Certifications



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