



# Secondary Mortgage :

Improving financial stability -  
a helping hand in housing finance

The subprime crisis had left homeowners lingering as foreclosures and poor risk management brought the world economy to its knees. Bad underwriting practices fueled the decade long housing bubble burst. A surge in indiscriminate lending meant creation of highly toxic loans.



## Effects of the Housing Meltdown

The client is a Fortune 500 government enterprise that deals in purchase and guaranteed mortgages in the secondary market. Their business is aimed at increasing liquidity amongst lenders and allocation of credit for future mortgages while underwriting emerging loans. After acquiring huge, toxic assets, the client faced massive losses in the 2008 mortgage crisis. Post meltdown a tough recovery had them determined to change their business model to withstand future bubbles and busts. However, the critical problem affecting the client's operations was that since 2010, millions of people had defaulted on their loan repayments across the world. Our client had the maximum loan-related delinquencies because of which it became imperative to bring borrowers back on track and regain their former track-record in the secondary mortgage market.

# How lack of technology, poor processes and inadequate systems hit operations

The government-led Credit Enhancement program, centered around financing multifamily affordable housing with tax exemption has also included our client in it. This new program was targeted to bring much-needed private credit back to the mortgage market. However, these loans had restrictions upon aspects like the income groups. Our client faced oncoming capacity constraints with estimates of running out of credit by the end of 2016. Apart from this the operations got hampered and were not delivering up to the mark owing to outdated technology, inadequate systems, flawed processes and overall production issues listed below, which lead to extra time and efforts.



# The Silver Lining - Moving to the Cloud

The client's Enterprise data transformation is attributed with being one of the most advanced, complex and transformative projects to be carried out in the industry. This helped Hexaware garner recognition in the Capital Markets business and we were able to partner clients in several critical business initiatives.

Our USPs for the client were quite a few, including how we collaborated on initiatives like;  
**Central Credit Pricing** – A significant business aspect that impacts how pricing was finalized at the client's.

**Credit Enhancement Target State** – If borrowers became delinquent, the client had the rights to take over the real estate assets which affected the overall profitability. In order to avoid this, the client wanted to implement Credit Risk Transfer business model which made it possible to transfer risk onto the borrowers. This was a very critical business program, taking into consideration the fact that the client had 18 million loans with assets totaling \$3.2 Trillion. We implemented the Credit Risk Transfer business model, that enabled the client to be a shareholder in the risks. This was a shaper project where we implemented a lot of best practices. We also implemented agile, push button deployment and auto testing.

- Various projects at our client locations follow the credit enhancement target state framework, which is highly versatile, scalable and flexible.
- Last year, the Credit Enhancement Target State application moved to cloud. The migration has two parts- the portal is already on the cloud and the java engine core is being moved to the cloud.
- Usually it takes 4-5 weeks for cloud migration, however, we spun the cloud environment in minutes leading to zero business disruption.

Hexaware devised a cloud transformation journey for the client that charted the migration path for 600+ applications to AWS. The key was to reduce deployment time and create run environments faster using Amazon's service catalogue. Besides, we assisted our client to move their enterprise data to cloud for big data implementation. The cloud migration was accomplished in 3 ways:

- Application containerization with a lift and shift to any cloud provider including private cloud
- Refactoring the current application
- Rewriting the entire application using cloud native functionalities





# The rise of Automation

Using our AUTOMATE EVERYTHING™ theme our teams were able to develop Customer Value Adds (CVA) worth:



Also, our QA teams automated 650 test cases with CICD (Continuous integration, continuous deployment) driving 11 successful production releases. Our team introduced a new tool that accelerated code development by 30%. This simplified and automated production deployment in just 4 hours leading to our client's vision for a single click deployment in future. A new testing automation tool linking with Jira and quality center helped auto update test cases too. The entire DevOps environment was automated for push button deployment.

## Re-Engineering Enterprise Data Management Framework

A paradigm shift in data processing framework included building an Integrated Data Store (IDS), Enterprise Data Warehouse (EDW) and an Enterprise Data Lake (EDL). The IDS consisted of a consolidation of numerous business sources for data capture and processing in real-time for consumers, EDW and EDL. EDW supports inter and intra business unit reporting while providing the ability to slice and combine data segments as required including configuration-based view capabilities.

IDS, EDW, EDL are auditable and reportable and follow a layered data processing architecture which can be independently throttled. These technology intensive components developed for their pure business capabilities, included building new product lines (PFP Major Pools) and cross selling existing product lines (Re-performer pools).



# Elevating the Customer Experience

In the last few years our client had built a specialized team to tap into digital transformation opportunities for their customer-facing channels. We collaborated with this team to bring focus to self-service for improving the overall customer experience.

We built a new API policy for the client's industry-renowned underwriting tool, and this reduced the time taken to process applications and eliminated the need for any manual hand-offs from the client's staff. We also took customer engagement to the next level by building chatbots. In this way, we were able to transform the customer's digital experience and offer stellar customer satisfaction.

Hexaware stepped in to define 150 business rules and 40 calculations logic in the client's rule management system enabling the business teams to manage the rules by themselves. The system is now integrated with the centralized hub to streamline data flow from 6 upstream applications and 7 downstream applications.



# Conclusion

Our engagement and initiatives were extremely rewarding and helped us deliver on our central theme of 'AUTOMATE EVERYTHING™, CLOUDIFY EVERYTHING™, TRANSFORM CUSTOMER EXPERIENCES™'. We touched and improved all three aspects of our client's business – Loan Acquisition, Servicing and Securitization. We were able to deliver business value, and customer delight with improved ease of doing business for all stakeholders.



## About Hexaware

Hexaware is the fastest growing next-generation provider of IT, BPO and consulting services. Our focus lies on taking a leadership position in helping our clients attain customer intimacy as their competitive advantage. Our digital offerings have helped our clients achieve operational excellence and customer delight by 'Powering Man Machine Collaboration.' We are now on a journey of metamorphosing the experiences of our customer's customers by leveraging our industry-leading delivery and execution model, built around the strategy— 'AUTOMATE EVERYTHING™, CLOUDIFY EVERYTHING™, TRANSFORM CUSTOMER EXPERIENCES™'.

We serve customers in Banking, Financial Services, Capital Markets, Healthcare, Insurance, Manufacturing, Retail, Education, Telecom, Professional Services (Tax, Audit, Accounting and Legal), Travel, Transportation and Logistics. We deliver highly evolved services in Rapid Application prototyping, development and deployment; Build, Migrate and Run cloud solutions; Automation-based Application support; Enterprise Solutions for digitizing the back-office; Customer Experience Transformation; Business Intelligence & Analytics; Digital Assurance (Testing); Infrastructure Management Services; and Business Process Services.

Hexaware services customers in over two dozen languages, from every major time zone and every major regulatory zone. Our goal is to be the first IT services company in the world to have a 50% digital workforce.

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