CLOUD NATIVE APPLICATION DEVELOPMENT FOR BUSINESS TRANSFORMATION OF A COMPLEX IT LANDSCAPE

Hexaware engaged with a leading financial firm to guide them on their transformation roadmap with the latest technology stack, futuristic design and rapid cloudification.
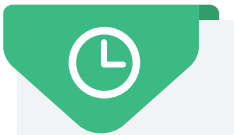
The Client

The client is a leading Government owned financial firm with annual revenue of $100 billion with 7000+ employees spread over 30 locations in the USA.

The Problem

Software is the primary means by which our client delivered products to their end-users. Millions of end-users rely on the resilience of our client's products, and majority of the applications in their large portfolio are considered mission-critical.

Prior to engaging with Hexaware, the client met their end users' digital needs through a complex web of tightly coupled systems of record. As new enhancements were developed on top of the pre-existing code, this complexity only increased; applications became even more tightly coupled, and internal dependencies across applications increased. This increased the amount of time it took for the central IT team to make changes to existing applications and develop new ones, making it even more challenging to serve the growing demands of the business.

Challenges

To drive more revenue & improve competitiveness & time-to-market of new products and	The need for a robust and agile environment that focuses on creating the best product for end users	Improve faster time-to-market for differentiated and new technology solutions	Eliminate performance issues in terms of scalability and efficiency in the existing business landscape

The client looked for a strong technology partner to help them address the above challenges and also guide them on their transformation roadmap with the latest technology stack, futuristic design and cloudification. They also wanted the partner to focus on innovating on the service delivery and not only technology.

The Solution

Recognizing that today's technologies and methodologies are radically different from the those of the past, we adopted a new software development methodology and a cloud native approach of 'everything-as-a-service'. We implemented a new service delivery methodology where we included cross-functional scrum teams that had consultants from DevOps, Security, Design, UX and business to provide diverse opinions and produce better outcomes. We made the teams responsible for delivery and availability of their systems from inception to deployment and beyond. The team opted for agile processes that allowed them to validate early and often, throughout the development journey. This sped up the timeline dramatically, while also ensuring a better outcome for the organization's investment of time and resources.

The core design tenets that were identified, required the platform components be independently upgradeable from its applications; enabled by standard technologies, and available as reusable and highly elastic services. There was also a desire for consistent and automated software development lifecycle for improved developer productivity and lowered learning curve across projects. All the above factors aligned towards a cloud native approach of implementing the new application The new application also needed a robust solution to factor in changing business and customer demands and to support enriched customer experience. It was also important for the solution to align to trends in the mortgage industry, engagement channels, and best practices like, STP, autonomous business decisions, secured, and data and insights. The solution focused on the decomposition of business processes into unique business functions and packaged as cohesive components, with dynamic variations managed through externalized rules.

The solution consisted of the following actions:

- Streamlined straight-thru-processing and simplified technology infrastructure
- Technical agility through a faster application release cycle, test automation and reduction of platform complexity leading to reduced cost of changes
- Development of new functionalities as microservices
- Push Button Deployment with Blue Green model for minimal downtime
- Technology aligned with enterprise IT and data roadmap, leading to improved platform scalability
- Containerization of Application and Technology Platform (App Server & App) using Docker
- Infrastructure and application monitoring automated with AWS CloudWatch, Lambda and SNS services
- CI/CD Automation for Seamless Build & Release Management through Jenkins

Few broad themes applied to our solution include:

Few broad themes applied to our solution include:

Business Agility

We supported a rapid change of business through the configuration of processes at runtime instead of hard-wiring. The critical decisions were externalized and managed by business users themselves to drive faster response to changes, thereby reducing the cost of changes.

Secured

Our solution provided complete security, trust, audit and traceability of all transactions including tracking of unauthorized access, usage patterns and right data to the right audience.

Functional Richness

The solution delivered a rich set of functionalities through composition of multiple services internal (within application boundary) and shared, an As-Is applications of the client. The composable services architecture enabled smoother transition and migration of legacy applications without any disruptions.

Re-use As-Is Enterprise Services

The solution leveraged on all organizational shared and business services through the enterprise service bus.

Plug and Play Solution

This is a component-driven solution to support plug and play of business capabilities with clear separation of dependencies (through interface/service contracts). The component-driven solution made the application more maintainable and extensible for the future.

The Result

We took approximately 24 months for the design, development, automation and cloud deployment of the application, and this solution resulted in the following:

- Enhanced operational efficiency by 20-25% for business users
- Reduced infrastructure TCO by 30% by auto-scaling or on-demand infra provisioning compared to on-premise hosting option
- Reduced time-to-market by 30-40% through script-based infrastructure provisioning and Agile DevOps automation using CI/CD
- Improved availability and scalability of application and infrastructure by 30%, leveraging AWS services like, EC2, S3, RDS, etc.
- 100% reduction in application downtime during release with the adoption of Blue Green deployment model
- API test execution effort reduced by 60%
- Enhanced business agility and security
- Seamless integration of new cloud components with existing on-premise components

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. 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, 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.

Learn more about Hexaware at http://www.hexaware.com

NA Headquarters
Metro 101, Suite 600,101 Wood
Avenue South, Iselin,
New Jersey - 08830
Tel: +001-609-409-6950
Fax: +001-609-409-6910

India Headquarters
152, Sector – 3
Millennium Business Park
'A' Block, TTC Industrial Area
Mahape, Navi Mumbai – 400 710
Tel : +91-22-67919595
Fax : +91-22-67919500

EU Headquarters
Level 19, 40 Bank Street,
Canary Wharf,
London - E14 5NR
Tel: +44-020-77154100
Fax: +44-020-77154101

APAC Headquarters
180 Cecil Street,
#11-02, Bangkok Bank Building,
Singapore - 069546
Tel : +65-63253020
Fax : +65-6222728