Story Series

HEXAWARE

AMAZE™
for Applications

# Plotting a new course: Selecting the right application migration strategy made the big difference

**28% of spending within key enterprise IT markets will shift to the cloud by 2022, up from 19% in 2018**

**Growth in enterprise IT spending on cloud-based offerings will be faster than growth in traditional, non-cloud IT offerings**

***Source: Gartner. Read here***

Cloud computing has proven that it can empower businesses to accelerate service delivery, unleash innovation, and deliver high performance

***"Why cloud?"***
**is no longer the question.**

**It has been replaced with**
***"How to migrate to the cloud swiftly and efficiently?"***

**Brian is the CIO of a large mortgage lender. The company's legacy systems were:**

- **Facing obsolescence**
- **Obstructing innovation**
- **Burdened with a huge recurring license cost**

Despite the challenges, Brian's view about modernization was, ***"If ain't broke, don't fix it."*** This outlook was driven more by fear than philosophy

## What were Brian's fears about modernizing legacy applications?

- The technical constructs of on-premises systems can be very cloud unfriendly and on-premises dependent
- There could be complications due to the high interdependency of mission-critical codes, leading to business disruption
- The original code architects had moved on, there was a lack of documentation, and they did not have the subject matter experts to analyze and take forward the modernization agenda
- One of their applications had 700,000 lines of code and another had 300,000+ lines of code. Identifying and prioritizing the applications for migration could be a challenge. With typical developer productivity being 20,000 lines of code per day, they estimated that it would take them 6 months to analyze, convert, and deploy them through containers

The biggest roadblock to migration is **a manual approach**. It aggravates the challenge, makes cloud migration risky, and impacts the benefits of cloud computing.

**Automation** is critical for achieving success in replatforming legacy applications across the parameters of time, cost, and efficiency.


## Insight

The true power of automation will be lost when it is deployed inconsistently. For example, automation is typically restricted to code analysis, and a manual approach is used for code modernization.

It is a classic broken strategy to use automation for one aspect and adopt a manual approach in another.

**To experience its full power, automation needs to be leveraged end-to-end**

This insight led Hexaware to develop a product that would help accelerate legacy systems to the cloud using sophisticated automation technology from start to finish, analysis to implementation

# Discover AMAZE™

Hexaware's proprietary solution to modernize legacy applications

Developed specifically to address the challenges of applications built on Java or .NET

At the heart of AMAZE™ is **AUTOMATION**

It can automatically analyze applications, replatform them based on their criticality, and move them to any public or private cloud platform

## What makes AMAZE™ unique?

There are several automation tools in the market for legacy application transformation. Brian needed to understand what made AMAZE™ unique and why he should consider it for his application modernization mission.

AMAZE™ is unique because its automation is not restricted to code analysis. It deploys automation at three levels:

**3 Refactors**

Based on the codes selected, the on-premises codes are converted to cloud-friendly codes.

**2 Reports & Recommends**

Once the codes are scanned, AMAZE™ generates a highly detailed, easy to read, cloud readiness report within a couple of hours, to a day.

**1 Scans**

It will scan the entire source code in a matter of hours or a day. This is a drastic reduction of time because the typical developer productivity is 20,000 lines of code per day and with a manual approach, it would take months to scan a million lines of code.

With AMAZE™, the modernization project gains true acceleration at every stage!

That's not all. AMAZE™ delivers more unique benefits. Through an intuitive and in-depth analysis, it identifies and migrates applications based on their type, technical complexity, and strategic value. As a result of this analysis, AMAZE™ does three types of migration:

**Simple containerization** | **Simple containerization with automation** | **Microservices & API enablement**

**Simple containerization:**
For applications that have no active releases, AMAZE™ recommends a simple containerization.

**Simple containerization with automation:**
For applications that have planned 2-3 active releases, AMAZE™ recommends simple containerization with automation and the entire release process is automated. This means DevOps and CI/CD pipelines get built for the legacy applications that get moved to the cloud to facilitate an easy way of engineering. This reduces the entire deployment cycle from 3 months to about a week and the automation investment will see a quick ROI for planned releases in the upcoming year.

**Microservices & API enablement:**
For applications with active releases and high-performance requirements, we offer containerization with automation and API enablement. The monolith is broken down into microservices to scale only those that consume maximum compute power. This creates a scalable environment for the new and modern application. It also helps the client to get rid of licensing costs for unwanted modules.

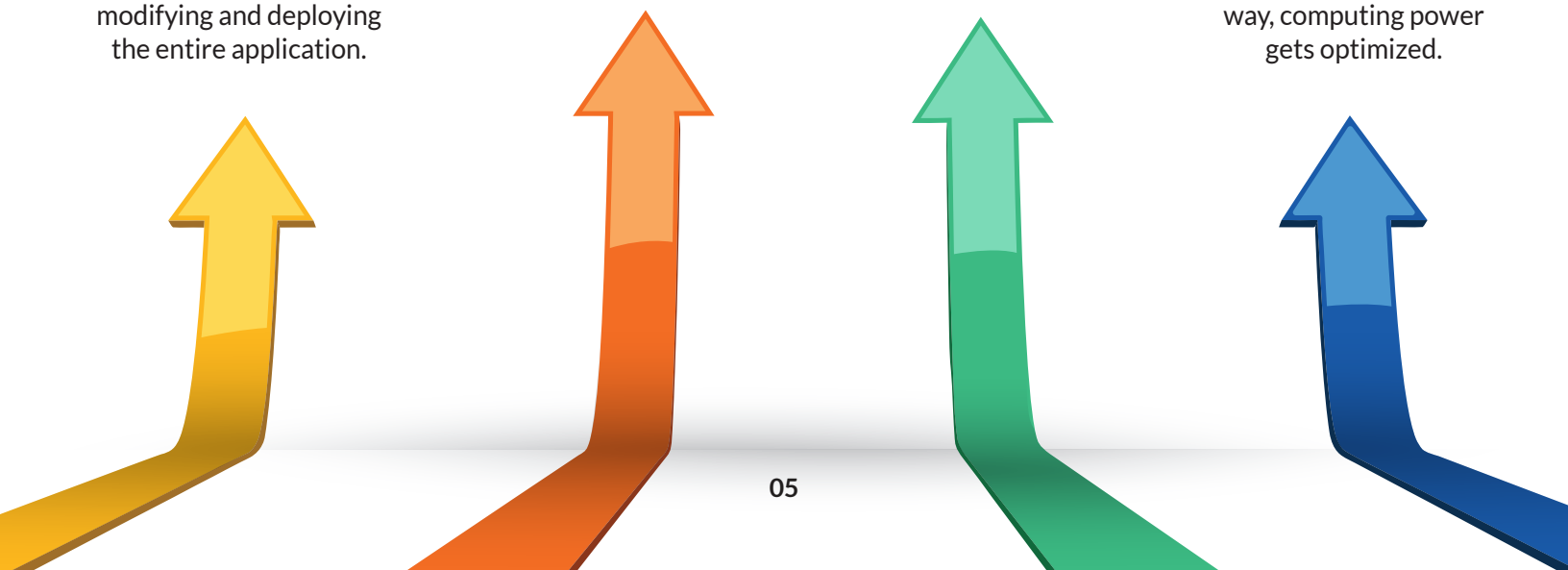
## The advantage of microservices and API enablement

On a monolithic application, even if a small aspect of the service is modified, all aspects need to be re-tested. It is like modifying and deploying the entire application.

In the new architecture created by AMAZE™, the services can be individually deployed as they have a definite interface.

This gives Brian and his team a high level of confidence knowing that modifying one area of the service won't impact other areas.

Scalability is another advantage. If one service needs to run longer, only that service can be powered. This way, computing power gets optimized.



# Preserving current investments and planning for application transformation

How will AMAZE™ work with the existing toolsets and can Brian protect current investments?

What must the enterprise do from a readiness and planning perspective for modernization?

### Preserving current investments

AMAZE™ is designed for extensibility and customizability. Hexaware spends time on the client application artifacts to understand the current architecture and toolsets with a goal to re-use existing investments to the maximum extent possible.

If the customer has an existing CI/CD pipe, AMAZE™ is configured to deploy the application using their CI/CD pipe instead of using the one that AMAZE™ provides. This ensures preserving the customer's investments, as well as conforming to the architecture standards of the customer.

### Planning for modernization

If there are any immediate releases planned, they would need to be rescheduled. This will ensure that AMAZE™ can work independently of the current application code.

Training is important. The client development team will need to be trained to work on cloud technologies and modern implementation.

## Defining the measures of success

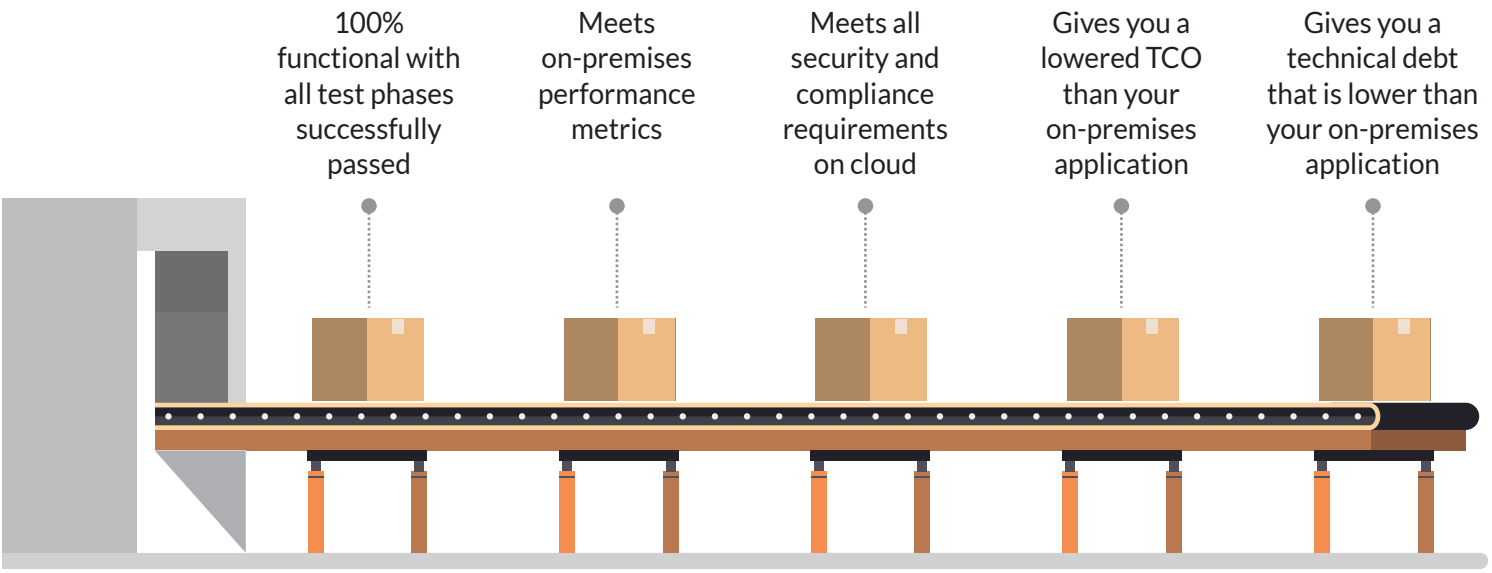
Brian and the leadership team agreed that success should be measured on the following dimensions

**TCO reduction and ROI:** In the case of a manual implementation, the ROI realization would typically take 24 months or at least a minimum of 18 months. **With AMAZE™, the ROI can be seen in 9 to 10 months**

**Productivity improvement:** Our clients have experienced **a 25% improvement in development productivity**. The application on the cloud **should meet on-premises performance metrics**

# Does AMAZE™ guarantee favorable outcomes?

**Yes!** Hexaware's cloud experts will certify the deployment project for the most critical parameters of success.




**Hexaware also gives a 30-day warranty for any defects caused by code change**

# How did Brian's company benefit from the cloud migration project?

**The Amazing Results**

Hexaware deployed a proof-of-concept for Brian's modernization goals and the following results were delivered:

## From cynicism and disbelief to confidence and conviction

The incredible speed of migration and reduction in TCO took Brian and his team from cynicism and disbelief to confidence and conviction. AMAZE™ had demonstrated that legacy applications could leverage the advantages of cloud architecture without huge costs or protracted timelines

## How did AMAZE™ achieve these results?

- The application was broken into the Web front-end and service back-end
- The back-end session EJBs were re-platformed to independent Spring Boot Service Apps with REST End Points
- The Message-Driven Beans were refactored to Spring Message Beans
- The Entity Beans were refactored to JPA
- All business services were refactored as independent macro applications with all dependencies
- The Web Front and each Service App were then deployed in Tomcat on separate containers on AWS ECS providing infinite scalability, high availability, high fault tolerance, and improved performance
- The Web Front and macro services were made stateless with Redis cache
- The Service REST API End Points were secured with OAuth2
- Replatformed heavyweight Oracle, DB2, or SQL Server database to PostgreSQL
- Developed unit test cases, API test automation, and CI/CD implementation

"We have seen automation tools from other service providers. But the maximum they are able to do with automation is to analyze the code. They are not able to take the next step from analysis to recommendation and implementation. So, the idea of AMAZE™ as a tool not just for analyzing, but also for re-factoring applications to move them to the cloud is hugely appealing. Our initial estimate was that it would take 6 months. However, Hexaware did it in 6 weeks!"

**- CIO, large mortgage company**

## 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 customers' customers by leveraging our industry-leading delivery and execution model, built around the strategy— 'Automate Everything™, Cloudify Everything™, Transform Customer Experiences™.' 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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