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Nexval.ai Innovation Bi-Weekly



70% of cloud migrations fail.
What sets the successful 30% apart?

**December 13, 2024** 

#### From the Editor's Desk

Welcome to our latest edition, where we delve into the intricacies of cloud migration, DevOps, and maximizing ROI in mortgage applications.

### The Imperative of Effective Cloud Adoption

As mortgage companies continue to navigate the complexities of digital transformation, the importance of effective cloud adoption cannot be overstated. With the stakes higher than ever, companies must carefully consider their cloud strategies to ensure seamless integration, regulatory compliance, and optimal ROI. A well-planned cloud migration roadmap is essential to achieving these goals.

## **Key Considerations for a Successful Cloud Migration**

This edition examines the critical considerations surrounding cloud migration, including the essential elements of a successful migration and a structured approach to navigating this complex process. The importance of creating a cloud migration roadmap that addresses the unique challenges of mortgage operations cannot be overstated, from data security and compliance to system integration and scalability.

#### Leveraging DevOps on Cloud to Drive Business Value

The challenges and opportunities of implementing DevOps on cloud for mortgage applications are also



explored. The benefits of DevOps, such as improved collaboration, increased efficiency, and enhanced customer satisfaction, are discussed, along with guidance on how to overcome common obstacles and maximize ROI.

# Strategic Insights for the Mortgage Industry

At Nexval.ai, we are committed to providing mortgage companies with the strategic insights and expertise needed to navigate the complexities of cloud migration and DevOps. We invite you to explore the trends, technologies, and strategies shaping our industry, and to discover how our expertise and solutions can support your business goals.

Dr. Dipankar Chakrabarti In-House Tech Advisor to Board, Nexval.ai Ex-PwC Executive Director Certified- CMMI IIT, IIM alumni

### From the Digital Desk

As we wrap up the year, I wanted to take a moment to express my heartfelt gratitude to each and every one of you for being part of our community. It's been an incredible journey, and we're honored to have had the opportunity to share our insights and expertise with you.

I've had the privilege of reading your comments, engaging with you on social media, and hearing your stories of how our content has helped you navigate the complexities of mortgage lending. And let me tell you, it's been truly humbling.

Our last edition of **Zine Dot Al** on Cloud Deployment and Cloud Readiness was a huge success, and we're thrilled that it sparked so many great conversations.

But here's the thing: our community isn't just about consuming content – it's about adding value to each other's lives. Your participation, engagement, and feedback are what make our community thrive. You bring unique perspectives, experiences, and insights

that help us create better content and serve you more effectively. We're eager to learn from you and potentially feature your story in our next issue. You can submit your inputs by clicking here.



This time around, we're excited to dive into Cloud Migration, DevOps on Cloud, and maximizing ROI in mortgage applications. We hope you find it helpful, informative, and maybe even a little inspiring.

So thank you again for being part of our community. We're honored to have you along for the ride.

We invite you to dive into this edition, contribute your insights, and collaborate with us to drive innovation in mortgage lending.

Regards,
Partha D
VP, Digital Services, Nexval.ai,
Gen Al Enthusiast

#### The Thinkers Who Guide Us: Our Board of Advisors

# Suha Zehl - A Catalyst for Change in Mortgage and Fintech

Suha Zehl is a dynamic entrepreneur and innovator who is redefining the contours of the mortgage and fintech industries. As the Founder and Managing Director of Z Technology Solutions, Suha has carved a niche for herself as a visionary leader who is passionate about harnessing technology to drive growth and excellence.

With a career spanning over two decades, Suha has cultivated a unique blend of business acumen, technical expertise, and strategic vision. Her ability to distill complex industry trends, identify emerging opportunities, and develop effective solutions has earned her a reputation as a trusted advisor and mentor.

"The mortgage and fintech industries are at a pivotal moment, where technology and consumer needs are converging to create unprecedented opportunities for growth and transformation. By embracing a culture of innovation, collaboration, and compassion, we can harness this momentum to build a brighter future for our customers, our communities, and our industry as a whole."
- Suha Zehl

As a member of our Board of Advisors, Suha brings her unique perspective, expertise, and leadership style to help guide our company toward transformative



heights. Her contributions will undoubtedly inspire our team to drive innovation, excellence, and growth.

With Suha on our Board of Advisors, our clients can expect even more innovative solutions, expert guidance, and strategic support to help them navigate the complexities of the mortgage and fintech industries. If you're looking for a trusted partner to help you drive growth, innovation, and excellence, we invite you to explore how Nexval.ai, guided by Suha's expertise, can help you achieve your goals.

Suha Zehl CMB®, AMP, CCP, CPM Consultant on Board at Nexval.ai

#### The Thinkers Who Guide Us: Our Board of Advisors

#### Lori Eshoo - A Legacy of Excellence in Real Estate and Property Tax Solutions

Lori Eshoo is a distinguished business development executive with a remarkable track record of success in the real estate and property tax solutions industries. As the Business Development Executive at Eshoo Consulting, LLC, Lori has established herself as a trusted advisor, renowned for her expertise, and commitment to excellence.

With over 40 years of experience in the industry, Lori has developed a profound understanding of the complexities and nuances of real estate, property tax solutions, compliance & portfolio management. Her ability to analyze intricate problems, identify opportunities, and develop effective solutions has earned her a reputation as a go-to expert in her field.

"I've dedicated my career to helping individuals and businesses navigate the complexities of real estate and property tax solutions. It's a privilege to work with clients who trust me to guide them through life's most important financial decisions."
- Lori Eshoo

As a member of our Board of Advisors, Lori brings her wealth of experience, expertise, and passion to help guide Nexval.ai toward new heights. Her contributions



will undoubtedly enrich our team's understanding of the financial services ecosystem, enabling us to craft more strategic and impactful solutions for our clients.

Lori's expertise will serve as a cornerstone for our clients' success, providing them with a deeper understanding of their unique financial challenges. By leveraging her expertise, we can enable our clients to make informed decisions, avoid costly pitfalls, and achieve their long-term objectives with confidence and clarity.

Lori Eshoo, CMB®, AMP, CCP, CPM Real Estate Leader and Innovator Business Development Executive at Eshoo Consulting LLC

#### The Thinkers Who Guide Us: Our Board of Advisors

#### Dr. Dipankar Chakrabarti - A Technologist with a Passion for Problem-Solving

Dipankar's fascination with technology began at a young age, and over the years, it has evolved into a deep-seated passion for using technology to solve complex problems. With a career spanning over two decades, Dipankar has established himself as a respected technologist with a unique ability to merge technical expertise with business acumen.

Throughout his illustrious career, Dipankar has had the privilege of working across diverse industries, including metals, manufacturing, and nuclear power. His global experience, spanning the US, Japan, and Germany, has equipped him with a unique understanding of the complexities of international business. With decades of experience, Dipankar has worked on numerous projects that have showcased his technical prowess and innovative approach including e-Commerce, blockchain, and cloud transformation. His expertise in strategic IT governance has been invaluable to businesses seeking to leverage technology to drive growth and improve operations.

"I've always been fascinated by the potential of technology to transform businesses and improve lives. As a technologist, I believe it's my responsibility to use my skills to make a positive impact."

- Dipankar

Dipankar's appointment to our Board of Advisors marks a significant milestone in Nexval.ai's growth. With his exceptional technical acumen and innovative



approach to problem-solving, Dipankar will play a pivotal role in shaping our strategic direction. His expertise will be instrumental in informing our product development and service offerings, ensuring we remain at the forefront of innovation.

With Dipankar's guidance, our clients will benefit from his meticulous approach to problem-solving and his ability to develop tailored solutions that address their unique needs. By working together, we can help our clients achieve their goals and overcome the complex challenges they face in today's fast-paced business environment.

Dr. Dipankar Chakrabarti: Ex-PwC Executive Director Certified-CMMI, IIT, IIM alumni



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#### Welcome to the Nexval.ai's Zine Dot Al

#### What is Zine Dot AI?

At Nexval.ai, we envisioned a future where mortgages were effortless. Inspired by our AI, we crafted a name that harmonized simplicity with innovative technology. Thus, Zine Dot AI was born - a pioneering platform that transforms the mortgage journey, harnessing the power of advanced AI to make the complex, simple.

#### How will Zine Dot AI make a difference for you?

This dossier is your roadmap to mortgage industry leadership, providing expert insights and analysis to ensure you're always at the forefront of emerging trends and opportunities.

#### Each issue will deliver:



Ready to make smarter decisions, stay ahead, and seize new opportunities? Let's dive in together!

### **AI** in Action

# Cloud Migration: Unpacking the Secrets of the Successful 30%

The allure of cloud computing is undeniable. Scalability, flexibility, cost-effectiveness, and enhanced collaboration – the benefits are numerous. Yet, a staggering 70% of cloud migrations fail to meet their objectives. What sets the successful 30% apart?

#### **Clear Objectives and Strategy**

- Challenge: Lack of clear objectives and strategy can lead to unclear expectations, misaligned resources, and poor decision-making.
- Solution: Establish well-defined goals, aligned with the organization's overall business strategy. Identify the right workloads for migration, select the optimal cloud deployment model, develop a tailored migration roadmap, and establish key performance indicators (KPIs) to measure success.

#### Thorough Assessment and Planning

- Challenge: Insufficient assessment and planning can lead to unexpected roadblocks, cost overruns, and delays.
- Solution: Invest time in conducting thorough infrastructure and application assessments, identifying potential roadblocks, and creating detailed migration plans. Include timelines, budgets, resource allocation, risk management, and communication strategies.

#### **Change Management and Training**

- Challenge: Inadequate change management and training can lead to resistance, decreased productivity, and increased errors.
- Solution: Prioritize people over technology, with stakeholder buy-in, comprehensive training, and cultural shifts. Provide training for IT staff and end-users, and establish continuous feedback mechanisms.

#### **Phased Migration Approach**

- Challenge: Poorly executed migration and deployment can lead to downtime, data loss, and decreased customer satisfaction.
- Solution: Adopt a gradual, phased approach to minimize disruption and ensure iterative testing and validation. Identify and resolve issues before fullscale migration, and refine processes for improvement.

#### **Ongoing Monitoring and Optimization**

- Challenge: Ineffective ongoing monitoring and optimization can lead to performance issues, security breaches, and cost overruns.
- Solution: Recognize cloud migration as an ongoing process, requiring continuous monitoring, optimization, and adaptation. Monitor performance, security, and costs, and regularly optimize and fine-tune.

#### **Security and Compliance**

• **Challenge:** Poor security and compliance can lead to data breaches, regulatory fines, and reputational damage.

### Al in Action

### **Cloud Migration: Unpacking the Secrets of** the Successful 30%

 Solution: Implement robust security
 Improved scalability and flexibility to frameworks, adhere to regulatory requirements, and ensure data sovereignty and governance. Conduct regular security audits and risk assessments.

#### **Right-Sized Cloud Services**

- Challenge: Selecting the wrong cloud services and providers can lead to vendor lock-in, increased costs, and decreased flexibility.
- Solution: Select the right cloud services and providers, matching workload requirements with cloud capabilities. Avoid vendor lock-in, negotiate flexible pricing models, and leverage cloud-native services.

#### **Continuous Integration and Delivery**

- Challenge: Poor integration and delivery can lead to delays, decreased quality, and increased costs.
- Solution: Integrate cloud migration with DevOps practices, including automated testing, continuous integration, and delivery. Enable faster time-to-market for new applications and services.

#### The Payoff

By prioritizing these key factors, organizations can achieve a smoother and more effective transition to the cloud. The benefits are numerous:

- respond to changing business needs
- Enhanced collaboration and productivity through cloud-based tools and platforms
- Reduced costs and improved cost management through pay-as-you-go pricing models
- Increased agility and responsiveness to changing market conditions
- Better data management and analytics capabilities to inform business decisions

#### Avoid the Pitfalls of Cloud Migration

While 70% of cloud migrations may falter, the successful 30% demonstrate a clear understanding of the complexities involved. By prioritizing strategy, planning, change management, and ongoing optimization, organizations can achieve a smoother and more effective transition to the cloud. If you're ready to join the ranks of the successful 30%, our team at Nexval.ai is here to assist. We'll work closely with you to develop a tailored cloud migration plan that addresses your specific challenges and goals.

### **Al Spotlight**

# The Migration Blueprint: A Structured Approach to Cloud Migration

Cloud migration can be a complex and daunting task. However, with the right strategy and tools, organizations can ensure a smooth transition. Artificial intelligence (AI) and automation play a crucial role in this process.

#### Phase 1: Pre-Migration Assessment

Before migrating to the cloud, it's essential to assess your organization's readiness. This involves evaluating your:

- Current infrastructure and applications
- Data storage and management needs
- Security and compliance requirements
- IT staff skills and training needs

If you're wondering where your organization stands, take the Cloud Readiness Assessment featured in **Zine Dot Al's** previous edition.

# Phase 2: Al-Driven Migration Planning

Al can help streamline the migration planning process. Here's how:

 Application discovery and assessment: Al-powered tools can automatically discover and assess applications, reducing manual effort and improving accuracy.

- Dependency mapping: All can help create detailed dependency maps, ensuring that all application components are accounted for during migration.
- Migration roadmap creation: Al-powered tools can generate customized migration roadmaps, taking into account application complexity, dependencies, and business requirements.

### Phase 3: Automation-Driven Migration Execution

Automation is critical for ensuring a smooth migration execution. Here's how:

- Automated workload migration:
   Automation tools can migrate workloads to the cloud, reducing manual effort and minimizing downtime.
- Automated testing and validation:
   Automation can ensure that applications function as expected in the cloud, reducing testing time and improving quality.
- Automated monitoring and optimization:
   Automation can monitor cloud resources and optimize utilization, ensuring cost-effectiveness and performance.

### Phase 4: Post-Migration Review and Optimization

In this final phase, your organization will review the success of the migration, identify areas for improvement, and refine processes for future migrations.

Review migration success metrics

### **Al Spotlight**

# The Migration Blueprint: A Structured Approach to Cloud Migration

- Optimize cloud resources and utilization
- Refine and improve cloud migration processes
- Document lessons learned and best practices

#### Consult with a Cloud Migration Specialist

Don't feel overwhelmed by the complexity of cloud migration. At Nexval.ai, our experts can assist with every phase of your cloud migration journey. From assessment and planning to execution and optimization, we'll help you navigate the process with confidence. Contact us today to learn more about how we can support your organization's cloud migration success.



### **Tech Brief**

### DevOps on Cloud for Mortgage Applications: Overcoming Challenges and Maximizing ROI

As a CIO or CTO, you're likely familiar with the benefits of DevOps on cloud for mortgage applications. However, implementing and optimizing DevOps on cloud can be complex, especially when dealing with sensitive financial data and regulatory requirements.

Common Challenges and Actionable Recommendations

#### 1. Security and Compliance:

- Implementing robust security controls and ensuring compliance with regulatory requirements like GLBA, PCI DSS, and FINRA regulations.
  - Recommendation: Conduct regular security audits and penetration testing, implement encryption and access controls, and ensure compliance with regulatory requirements through continuous monitoring and auditing.

#### 2. Legacy System Integration:

- Integrating legacy mortgage systems with cloud-based DevOps environments.
  - Recommendation: Develop a phased integration plan, use APIs and messaging queues to integrate legacy systems with cloudbased DevOps environments, and implement automated testing and validation to ensure seamless integration.

#### 3. Cultural and Organizational Change:

 Overcoming cultural and organizational resistance to adopting DevOps on cloud.  Recommendation: Develop a change management strategy, provide training and education on DevOps on cloud, and establish clear communication channels to ensure stakeholder buy-in.

#### **Maximizing ROI and Cost Savings**

Implementing DevOps on cloud for mortgage applications can result in significant cost savings and ROI:

- Reduced Infrastructure Costs:
   Cloud-based infrastructure reduces capital expenditures and operational expenses.
- Improved Efficiency and Productivity: Automation and streamlined processes improve developer productivity and reduce manual errors.
- Enhanced Quality and Reliability:
   Continuous testing and validation
   ensure high-quality applications and reduce downtime.

A well-planned strategy, phased implementation, and continuous monitoring and optimization are essential to maximizing the benefits of DevOps on cloud. To help you achieve these benefits, Nexval.ai offers comprehensive DevOps on Cloud services, providing expert guidance and support to streamline your mortgage application development and deployment.

# Industry Report Digest

- Mortgage brokers are rapidly adopting AI technology to streamline processes, enhance customer engagement, and improve decision-making. Generative AI helps brokers create personalized marketing messages and optimize lead generation in seconds, improving client communication. Advanced algorithms also analyze loan options and lender relationships, enabling brokers to make better decisions faster. Al tools are transforming the home-buying process by making it faster and more convenient, similar to an "Amazon experience." However, industry leaders emphasize the need for compliance with regulations and preserving the human value brokers bring to client relationships. As AI tools become more affordable and accessible. brokers are increasingly viewing them as essential for long-term success.
- Even if mortgage rates decline, servicing will remain critical for lenders as competition for retaining customers intensifies. Retaining servicing or establishing recapture agreements is essential for originators to stay competitive. Approximately 65% of mortgages backed by Fannie Mae, Freddie Mac, and Ginnie Mae have rates of 4% or lower, making them less prone to refinancing unless there's a significant rate drop. Rising

- delinquencies in FHA loans and loans where escrow costs outweigh payments pose challenges for lenders. Technology trends like automation in servicing functions and Al-driven due diligence are expected to grow, offering efficiency improvements and better borrower engagement.
- Cybersecurity experts warn that cyberattacks tend to increase during holidays and weekends, with 86% of organizations experiencing ransomware attacks on weekends or holidays, according to a Semperis report. Data from Darktrace shows a 70% increase in attempted ransomware attacks in November and December. The FBI and Cybersecurity and Infrastructure Security Agency (CISA) have also observed an increase in highly impactful ransomware attacks on holidays and weekends. Institutions are advised to remain vigilant and increase security persistence during these periods.
- Reps. Patrick McHenry and Maxine Waters have introduced two bills addressing the growing use of artificial intelligence (AI) in the banking system. The first bill requires financial regulators to conduct studies on AI and draft a report on its usage in banks. The second bill is a resolution acknowledging the benefits and risks of AI in banking. These bills represent a starting point for bipartisan legislation on AI in financial services.
   McHenry emphasized that these bills are a critical step forward in empowering the financial system to realize the benefits of AI.

# Al Across Industries The Top Dog of Robotics: Introducing Lynx, a Robot Dog for the Toughest Tasks



The **DEEP Robotics** Lynx is a revolutionary, all-terrain robot featuring a wheeled-leg hybrid design and proprietary intelligent motion control algorithms. This innovative design enables the Lynx to navigate challenging environments with unparalleled agility and speed. The Lynx boasts unparalleled off-road capabilities, climbing 22 cm steps and tackling 45-degree slopes. it offers a 3-hour battery life, IP54 protection rating, and high-performance image/video transmission, making it suitable for various industry applications.

The Deep Robotics Lynx is a robot dog designed to navigate rough terrain and perform a variety of tasks, including:

- Search and Rescue: The Lynx can navigate rubble, debris, and difficult terrain to locate and assist people in need.
- Environmental Monitoring: Equipped with sensors and cameras, the Lynx can collect data on environmental conditions, such as air and water quality, in hard-to-reach areas.
- Infrastructure Inspection: The Lynx can inspect bridges, tunnels, and other infrastructure in challenging environments, reducing the risk of human injury.

- Agriculture and Forestry: The Lynx can navigate rough terrain to monitor crop health, detect pests and diseases, and optimize forestry management practices.
- Mining and Construction: The Lynx can operate in hazardous environments, such as mines and construction sites, to inspect equipment, monitor conditions, and improve safety.
- Disaster Response and Recovery: The Lynx can quickly respond to disasters, such as earthquakes, hurricanes, and floods, to assess damage, locate survivors, and provide critical supplies.
- Surveillance and Security: The Lynx can be equipped with cameras and sensors to provide real-time surveillance and security monitoring in various settings, such as borders, prisons, and critical infrastructure.

The DEEP Robotics Lynx is an impressive feat of engineering, combining agility, intelligence, and ruggedness in a single package. As robots like the Lynx continue to push the boundaries of what's possible, it's exciting to think about the impact they'll have on industries and communities around the world.

### **Upcoming Event to Add to Your Calendar!**

#### Ten Things Your Company Must Do in 2025: Webinar by



The mortgage industry has faced unprecedented challenges, with low volumes, poor pricing, and widespread financial losses. Many companies are struggling to stay afloat, and the outlook for 2025 remains uncertain.

However, despite these challenges, some companies have found ways to remain profitable and even thrive. What sets them apart?

This webinar offers practical advice and strategies on how to improve your business and prepare for a stronger 2025. You'll learn about specific initiatives to increase revenue, control costs, and manage risk. These actionable suggestions can be implemented immediately to help you navigate the current challenges and position your business for long-term success.

Date: 17th December 2024

#### **Learning Outcomes from this Webinar?**

- Strategies used by high-performing companies to adapt to declining volumes and profit margins
- Essential steps for companies to take when facing decreased originations, reduced earnings, and liquidity concerns
- The importance of setting clear business objectives and key initiatives for management to focus on in 2025
- Practical advice on 10
  actionable initiatives for the upcoming year, covering investor relations, financial management, compliance, and operational efficiency
- Guidance on implementing these initiatives, including insights from top-performing companies and common pitfalls to avoid

Attend this webinar and equip yourself with the knowledge and strategies needed to navigate the challenges facing the mortgage industry.



At Nexval.ai, we leverage AI to deliver customized solutions tailored to your industry's unique needs.

We're not just about technology - we're about partnership. We collaborate with your team to understand your processes and goals, ensuring a seamless transition and ongoing optimization.

Our expertise spans mortgage and financial services, with a focus on automation, IT, BPO, customer service. risk management, and Al-driven process optimization.

Let's transform your business with intelligent automation and data-driven strategies.



Share your thoughts, shape the future! Let's mortgage-better with Al.

#### Let's Connect:

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