



ZINE DOT AI

Monthly Dossier from Nexval.ai's Research Lab

The Rise of Shadow AI in Mortgage

Managing Shadow AI Risks



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From the Editor's Desk

Shadow AI doesn't arrive with a press release. It shows up in small, ordinary ways - a chatbot used to draft a borrower email, a free summarizer pasted into a browser, a plug-in added quietly to speed up reporting. None of these choices feel reckless in the moment. But together, they create a parallel workflow that compliance never approved and IT never secured.

The irony is that most of these shortcuts begin with good intentions. Teams want relief from repetitive work, or a faster way to explain something complex. The risk comes later, when sensitive data leaves the guardrails of approved systems, or when an AI-generated draft is treated as fact without anyone checking the context. In other industries, companies are showing that "smart offshoring" isn't about moving work overseas - it's about pairing offshore hubs with AI so they handle exceptions, compliance checks, and judgment calls instead of clerical tasks. The offshore role shifts from data entry to quality assurance, from throughput to accuracy.

In our last edition, we examined **AIBPO and Smart Offshoring** - how firms are formalizing AI use in structured environments where oversight is built in. Shadow AI is the opposite: unstructured, invisible, and often discovered only after something goes wrong.

This edition looks at that gap:

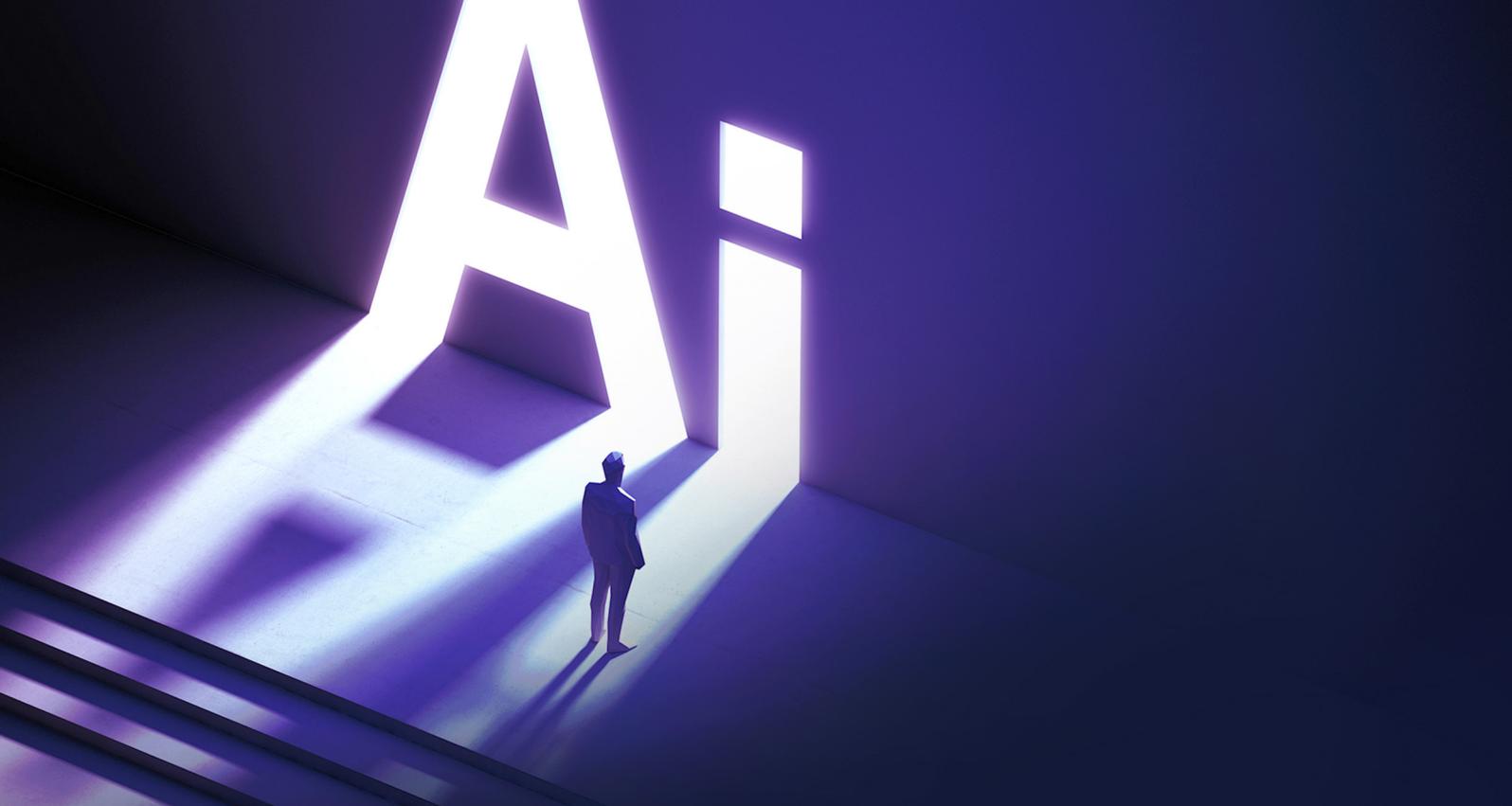
- ✔ where shadow AI is most likely to creep into servicing and lending,
- ✔ which tasks can safely be automated without losing accountability,
- ✔ and the monitoring steps that catch activity before it becomes a liability.



The work should be visible, accountable, and aligned with the standards our industry depends on. AI can be useful, but only when it's part of the system - not hidden outside it.

Thank you for reading, for questioning, and for sharing your own experiences. Shadow AI is already here; how we handle it now will decide whether it becomes a help or a hazard.

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Welcome to the Nexval.ai's Zine Dot AI

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!*

Shadow AI Statistics: Data Snapshots

Shadow AI represents invisible, unstructured adoption - often discovered only after damage is done. These numbers tell a story of rapid adoption, rising risk, and a governance gap that many firms haven't yet closed.

The Adoption Surge

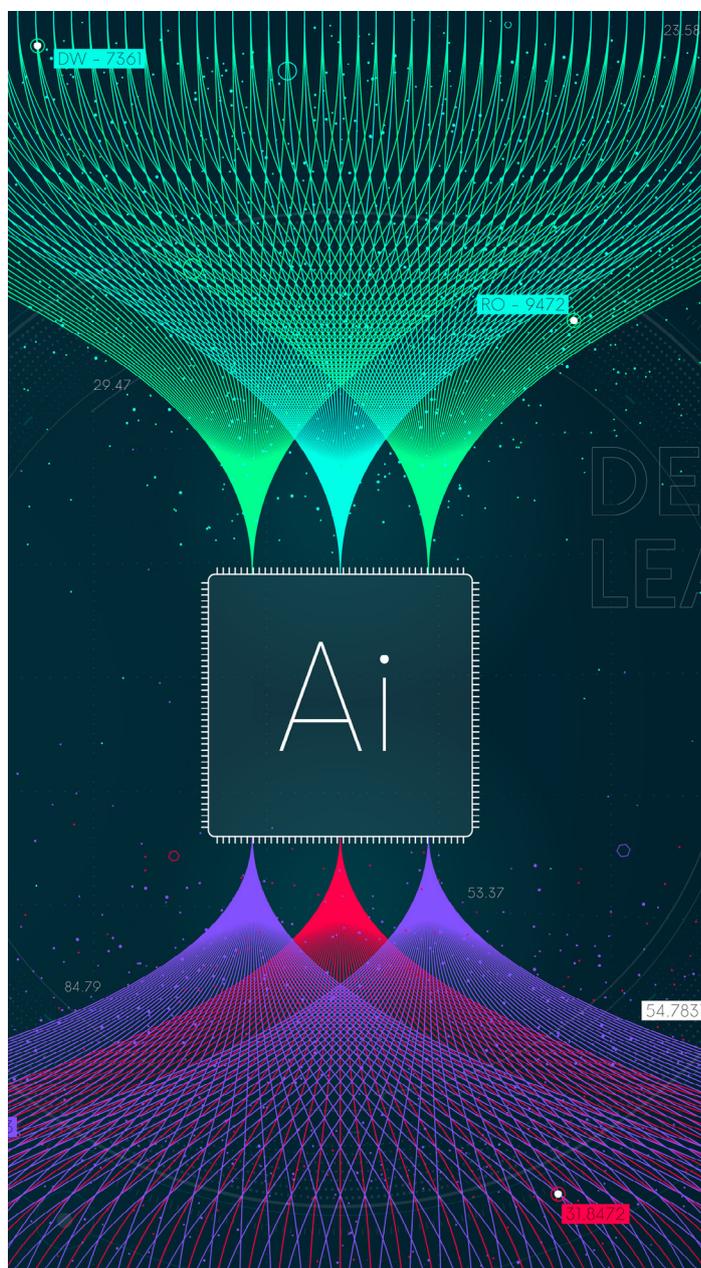
- **98%** of organizations report employees using unsanctioned apps, including AI.
- **78%** of professionals bring their own AI tools to work (BYOAI).
- Daily AI usage has doubled year-over-year (June 2024 to June 2025).
- **68%** of employees rely on free-tier tools like ChatGPT via personal accounts, which lack enterprise-grade protections.

The Security & Financial Toll

- **20%** of organizations have already suffered a breach tied directly to Shadow AI.
- The "Shadow AI Premium": **\$670,000** added to breach costs when unvetted AI is involved. Daily AI usage has doubled year-over-year (June 2024 to June 2025).
- **97%** of AI-related breaches stem from missing access controls.
- **65%** of Shadow AI breaches involve loss of PII.

The Governance Gap

- **63%** of organizations have no formal AI governance policy.
- **78%** have failed to communicate a clear integration plan.
- **58%** of employees report zero training on safe AI practices - even where policies exist.



AI Spotlight

The Rise of Shadow AI in Mortgage

What is Shadow AI?

Shadow AI refers to the use of artificial intelligence tools by employees without the knowledge or approval of their organization's leadership or IT teams. In mortgage operations, this often means staff turning to public generative AI platforms to draft borrower communications, summarize loan documents, or analyze servicing data outside of sanctioned systems. While these tools may feel convenient, they bypass established governance and introduce risks that are particularly serious in a regulated industry. Unlike shadow IT, which involved unsanctioned software or storage solutions, shadow AI deals directly with algorithms that process sensitive borrower information and produce outputs that may not comply with U.S. mortgage regulations.

Impact on U.S. Mortgage Compliance and Workflows

The U.S. mortgage industry operates under strict compliance frameworks, including oversight from the Consumer Financial Protection Bureau (CFPB), adherence to the Gramm-Leach-Bliley Act (GLBA) for borrower data privacy, and state-level regulations that govern disclosures and servicing practices. When employees use AI tools outside approved channels, they risk exposing non-public personal information (NPI) and generating outputs that fail to meet disclosure or fair lending standards. This creates vulnerabilities

not only in data security but also in regulatory audits and investor reporting.

Key risks executives should note

- **Data privacy:** Borrower financials and identifiers may be shared with external platforms without safeguards.
- **Compliance exposure:** AI outputs can misinterpret Truth in Lending Act (TILA) requirements or servicing rules.
- **Audit challenges:** Shadow AI use leaves gaps in documentation, making it harder to demonstrate compliance during reviews.

For U.S. mortgage executives, shadow AI is already present in daily workflows. The challenge is to recognize where it is happening, assess the risks, and establish clear policies that balance productivity with compliance. Addressing shadow AI requires collaboration between technology leaders, compliance officers, and business units to ensure that AI adoption is controlled and aligned with regulatory expectations.

Shadow AI is becoming part of mortgage operations whether executives sanction it or not. The firms that act now to define policies, monitor usage, and implement secure AI workflows will be better positioned to protect borrower data and maintain compliance. **Nexval.ai** helps U.S. mortgage companies replace unsanctioned AI use with secure, compliant workflows - built to protect borrower data, meet CFPB and GLBA requirements, and keep operations audit-ready.

AI in Action

Shadow AI in Daily Mortgage Workflows

How Shadow AI Appears in Practice

Shadow AI shows up in everyday tasks across mortgage operations. Employees often adopt AI tools to save time, but when those tools are outside approved systems, they introduce risks that executives need to understand.

- **Loan Processing:** Staff use public AI platforms to summarize borrower applications or credit reports. This can expose non-public personal information (NPI) and create outputs that aren't validated against Truth in Lending Act (TILA) or Equal Credit Opportunity Act (ECOA) requirements.
- **Servicing Communications:** Customer service teams draft borrower notices with external AI tools. Even small errors in phrasing can lead to compliance issues under CFPB servicing rules.
- **Audit Preparation:** Analysts rely on AI summaries of loan files to prepare for investor or regulator reviews. If those summaries are generated outside approved systems, they may not be traceable or defensible during an audit.
- **Vendor Workarounds:** When existing vendor platforms feel limited, employees turn to outside AI apps to fill gaps. This bypasses governance and creates fragmented workflows.

Operational Consequences

The problem here is the lack of consistency. Shadow AI outputs may

not be documented, making it difficult to demonstrate compliance during audits. It also creates uneven processes across teams, where some rely on sanctioned systems and others depend on unvetted tools. Over time, this weakens both operational integrity and regulatory confidence. faster cycle times, and investor confidence.

For U.S. mortgage executives, the challenge is to recognize **shadow AI as a workflow issue**, not just a technology concern. It requires visibility into where AI is being used, why employees are turning to unsanctioned tools, and how to provide secure alternatives that meet compliance standards. Addressing shadow AI is about building controlled processes that protect borrower data and ensure outputs can stand up to regulatory review.

Shadow AI is already part of daily mortgage activity, and ignoring it only increases risk. Firms that establish controlled, compliant AI workflows will strengthen both borrower trust and audit confidence. **Nexval.ai** supports this shift by providing **mortgage-specific AI solutions built for U.S. regulatory requirements**, giving executives a clear path to replace unsanctioned tools with secure, auditable processes.

Examples of Shadow AI in Mortgage Workflows

Loan Officer Using AI Drafts

A loan officer at a mid-sized servicer uploads borrower financials into a public AI tool to draft disclosure language. The draft looks polished but omits required Truth in Lending Act (TILA) details. During a compliance review, the issue is flagged, and the firm has no audit trail to explain the source of the text.

Analyst Preparing for Audit

An analyst uses an external AI platform to summarize loan packages before an investor audit. The summaries are efficient but cannot be verified because they were generated outside approved systems. When auditors request supporting documentation, the firm struggles to reconcile the AI outputs with original loan files.

Servicing Team Communications

Customer service staff rely on AI tools to draft borrower notices. While the tone is professional, the language does not align with CFPB servicing standards. Borrowers receive inconsistent communications, creating reputational risk and potential regulatory exposure.

Underwriting Review with AI Assistance

During underwriting, a junior staff member uses a public AI tool to compare borrower income documents and generate a summary for the underwriter. The summary looks organized but misses key



details required under the Equal Credit Opportunity Act (ECOA). When the underwriter relies on the AI-generated summary, the loan file ends up incomplete. In a later quality control check, the missing information is discovered, raising concerns about both compliance and data security since borrower documents were uploaded into an unapproved platform.

These examples show how shadow AI enters mortgage workflows through everyday shortcuts. The common issue is the absence of governance - outputs may look useful but fail compliance checks or lack documentation. Executives should note the common thread in these examples: **AI use must be sanctioned, monitored, and aligned with U.S. mortgage regulations.**

Nexval.ai provides mortgage-specific AI solutions that replace unsanctioned tools with secure, compliant workflows, ensuring borrower data protection and audit-ready documentation.

Checklist: Spotting Shadow AI in Mortgage Operations

How to Use This Checklist

This set of questions can be applied during internal reviews, compliance audits, or vendor assessments. These prompts are designed to surface actual practices rather than simple yes/no answers. They can be used in team discussions, compliance reviews, or vendor assessments to reveal where shadow AI may already be part of daily workflows.

Questions to Ask Inside Your Firm

An analyst uses an external AI platform to summarize loan packages before an investor audit. The summaries are efficient but cannot be verified because they were generated outside approved systems. When auditors request supporting documentation, the firm struggles to reconcile the AI outputs with original loan files.

- ✓ Which tools are currently used to draft borrower communications, and are any outside approved servicing systems?
- ✓ How are loan files or credit reports being summarized, and what platforms are involved in that process?
- ✓ When handling non-public personal information (NPI), where is it uploaded or processed?
- ✓ How are AI-generated outputs documented, and what steps ensure they can be traced during audits?
- ✓ In what ways are staff interpreting disclosure rules or servicing requirements with the help of AI tools?
- ✓ What workarounds exist when vendor platforms feel limited, and do they involve outside applications?
- ✓ What policies are in place that define which AI tools are approved, and how are those policies communicated?



This checklist is unique because it moves beyond generic AI risk questions and focuses on descriptive prompts tailored to U.S. mortgage operations. **By asking “how” and “which” instead of “do you,” it reduces defensiveness and makes it harder for shadow AI use to stay hidden, giving firms a clearer view of real practices.**

Tech Brief

Controlling Shadow AI in Mortgage Operations

Governance Frameworks

- **AI Use Policy:** Define approved AI platforms, supported tasks, and prohibited activities.
- **Data Classification:** Map borrower data to sensitivity tiers; restrict AI use for Tier 1 (NPI).
- **Audit Requirements:** Require metadata logging (user ID, timestamp, tool used, data type).
- **Exception Handling:** Establish escalation paths when unapproved AI use is detected.

Network Controls:

- Block traffic to public AI domains from servicing/underwriting desktops.
- Use proxy filtering to detect uploads of borrower data.

Data Loss Prevention (DLP):

- Pattern-match SSNs, account numbers, and borrower identifiers.
- Prevent copy/paste or file uploads to external AI tools.

Identity & Access Management (IAM):

- Enforce role-based access for AI features in vendor platforms.
- Require MFA for any AI-enabled workflows involving borrower data.

Audit Logging:

- Capture AI usage events in SIEM systems.

- Correlate logs with loan IDs for traceability.

Vendor Controls:

- Configure mortgage platforms to restrict export functions.
- Require vendors to certify AI modules against GLBA/TILA/CFPB standards.

Compliance Alignment

- **GLBA:** Ensure borrower data privacy; prohibit external AI uploads.
- **TILA:** Validate AI-generated disclosures against regulatory templates.
- **ECOA:** Monitor AI outputs for bias in underwriting summaries.
- **CFPB Servicing Rules:** Standardize borrower communications; block unapproved AI-drafted notices.

Shadow AI introduces both compliance and operational risks that cannot be managed with policy alone. Firms need layered technical safeguards - network filtering, DLP, IAM, and audit logging - combined with governance frameworks mapped to U.S. mortgage regulations. **Nexval.ai** provides mortgage-specific AI solutions that integrate these controls, helping institutions secure borrower data, maintain audit readiness, and adopt AI responsibly.

Industry Report Digest



- The average **long-term U.S. mortgage rate** barely budged in February, staying close to 6% as the spring home-buying season nears. The benchmark 30-year fixed rate mortgage rate edged up to 6.11%, essentially flat compared to last week when it was 6.1%, mortgage buyer Freddie Mac said Thursday. One year ago, the rate averaged 6.89%.
- President Donald Trump claimed the **U.S. economy could grow at 15% annually** if his nominee Kevin Warsh became Federal Reserve chair, a figure far above historical averages and current forecasts of around 2–2.5%. In a Fox Business interview, Trump criticized Jerome Powell's tenure and praised Warsh as capable of delivering aggressive rate cuts. Economists and market analysts quickly cast doubt, noting that GDP growth has rarely exceeded 15% outside of extraordinary rebounds like 2020's post-pandemic surge. The comments reignited concerns about Fed independence, with critics warning that politicizing monetary policy could push long-term yields and mortgage costs higher. Some experts argued that cutting rates for political reasons risks worsening inflation and affordability challenges for households already strained by high living costs. While Trump emphasized Warsh's alignment with his views, analysts remained uncertain whether Warsh would bend to White House pressure or maintain a balanced approach to inflation and labor markets.
- **Mortgage credit availability rose in January**, with the MCAI increasing 1.1% to 105.9, signaling a modest loosening of lending standards. The Conventional MCAI climbed 2.1%, driven largely by a 2.9% jump in Jumbo credit, while the Government MCAI edged up just 0.1% and the Conforming MCAI remained flat. According to MBA's Joel Kan, lenders expanded offerings of ARM loans, cash-out refinances, and loans on second homes, though most required lower loan-to-value ratios and stronger credit scores. He noted that early in the year, lenders often adjust products ahead of the spring homebuying season, and recent dips in mortgage rates have opened refinancing opportunities.
- Over **30% of U.S. homeowners now carry mortgage rates above 5%**, with about 20% above 6%, a sharp rise from just 10% in 2022. The Trump administration's plan for Fannie Mae and Freddie Mac to buy \$200 billion in mortgage-backed securities could trim rates slightly, unlocking refinance opportunities for millions. Refinancing demand has already surged, though the impact on monthly payments for new buyers remains modest, highlighting ongoing affordability pressures.

AI Across Industries

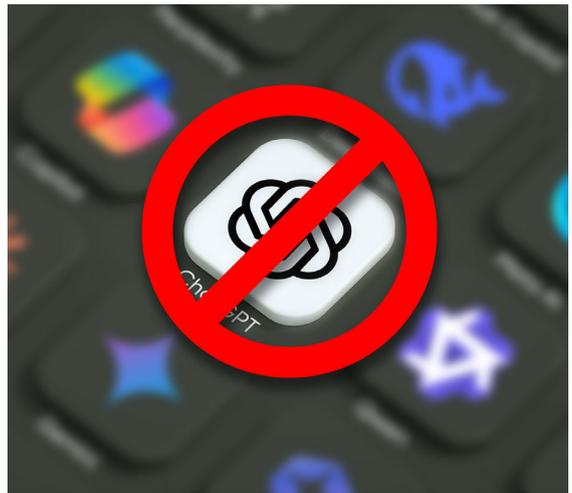
How Samsung Secured Its Data Against Shadow AI



In 2023, Samsung faced a major incident when employees uploaded sensitive semiconductor source code and meeting notes into ChatGPT to optimize workflows. This exposed proprietary intellectual property to external AI platforms, sparking immediate concern about data leakage and compliance gaps

Response Measures Samsung moved quickly to contain the risk:

- **Ban on Generative AI Tools:** Company-wide restrictions were placed on ChatGPT and similar platforms across internal networks.
- **Internal AI Development:** Samsung began building its own generative AI systems, trained on secure, proprietary data, to give employees safe alternatives.
- **Monitoring & Controls:** Network filters and data loss prevention (DLP) tools were deployed to detect uploads of sensitive information to external AI services.
- **Governance Framework:** Clear policies were introduced to define approved AI use cases, escalation procedures, and compliance requirements.



Operational Impact

- Employees were required to use Samsung's internal AI tools for coding, documentation, and translation tasks.
- Shadow AI activity was reduced by combining technical safeguards (network blocking, DLP) with governance policies.
- Intellectual property protection became the central driver of AI monitoring, rather than regulatory compliance (as in finance).

Samsung's experience shows that shadow AI is not limited to finance - it can compromise intellectual property in manufacturing and technology. Their layered approach - ban, build, monitor, and govern - illustrates how large enterprises can respond when shadow AI use becomes visible.

Upcoming Events to Add to Your Calendar!

The Mortgage Collaborative's Desert Disruption Conference

February 22–24, 2026 | Grand Hyatt Scottsdale Resort | Scottsdale, AZ

The Mortgage Collaborative's **Desert Disruption Conference** is designed as a collaborative, peer-focused event for mortgage professionals. The conference emphasizes practical solutions and networking over traditional sales pitches

Why Attend:

- **Peer Collaboration:** Lenders helping lenders philosophy with “Collab Labs” and roundtables.
- **Disruptive Tech & AI:** Insights into disruptive tech and mortgage AI
- **Operational Efficiency:** Working groups focused on practical operations, compliance, marketing, capital markets, and servicing
- **Risk Management:** Sessions on addressing critical business issues and risk management strategies

MBA's Mid-Winter Housing Finance Conference

March 8–11, 2026 | Ritz-Carlton, Bachelor Gulch | Avon, CO

Set against the stunning backdrop of the Colorado Rockies, MBA's **Mid-Winter Housing Finance Conference** offers an exclusive forum for senior leaders in real estate finance. This member-only gathering blends high-level discussions with meaningful networking, creating space to tackle today's challenges and shape tomorrow's strategies in housing finance.

Why Attend:

- **Exclusive access:** Members-only gathering of top housing finance leaders in a private, focused setting.
- **Disruptive Tech & AI:** Insights into disruptive tech and mortgage AI
- **Strategic discussions:** Interactive sessions tackling the most pressing challenges in real estate finance today.
- **Peer learning:** Exchange ideas with CEOs and presidents from diverse lending institutions of all sizes.
- **Relationship building:** Dedicated networking events designed to deepen professional connections in a relaxed environment.



ICE Experience 2026

March 16-18, 2026 | Gaylord Texan Resort & Convention Center | Las Vegas, NV

ICE Experience at the Wynn Las Vegas brings together mortgage lenders, servicers, and technology leaders to explore how digitization is transforming housing finance. With dynamic sessions, expert training, and unmatched networking, this event is designed to spark bold ideas and deliver actionable strategies for the future of the industry.

Why Attend:

- **Learn from leaders:** Hear insights from industry visionaries and ICE experts driving housing innovation.
- **Actionable sessions:** Gain strategies to boost revenue, improve productivity, and navigate regulatory change.
- **Hands-on training:** Sharpen your skills with expert-led Encompass workshops tailored to every experience level.
- **Networking opportunities:** Build valuable connections through receptions, breakout discussions, and peer exchanges.
- **Digital transformation focus:** Discover how end-to-end digitization can elevate borrower experience and business outcomes.



The Big Picture

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.

Partner with us as **Affiliates** to bring AI-driven automation and cloud solutions to servicers-reducing costs, improving compliance, enhancing borrower experiences, and creating new revenue opportunities for your business.

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

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



Innovation meets insight: Curated mortgage intelligence for an industry in constant motion.

Let's mortgage-better with AI.

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