

Breakout 1:  
**Mitigating Compliance  
Risk with Machine  
Learning**

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# Mitigating Risk with Machine Learning: The expanding role of data in regulatory compliance

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- Increased regulatory pressure (SVB collapse, 1071, CRA & HMDA Expansion)
- Greater scrutiny around data integrity
- Challenging deposit / margin environment creating pressure to reduce costs
- Manual data collection processes across multiple systems
  - Borrower docs, LOS, core, reporting tools, data repositories



- Difficult to correctly identify all reportable transactions
- Incomplete borrower info at origination and/or closing
- System of record doesn't match source documents
- Improper calculation of income or rates

# The impact of poor data collection



- Data errors could lead to appearance of discriminatory lending
- Increased reputational risk given data is publicly available
- Data resubmission, examination delays, penalties
- Low team morale, overworked staff, cross-functional distrust

# What is machine learning (ML)?



System that use algorithms and statistical models to analyze and draw inferences from patterns in data, similar to how humans learn and make decisions



- Automatically identify important data in source documents
- Validate data consistency across multiple documents and systems
- Incorporate business rules to calculate income, rates
- Eliminate manual data entry and “stare and compare” for teams

## Two common misconceptions about ML



- “We can just turn it on and the system works perfectly day one”
- “System automatically gets smarter on its own over time”





- Ability to process unstructured content
- How are exceptions handled? Vendor vs. in-house vs. offshore?
- Ease of setup and maintenance
- Existing integrations (LOS, data warehouse, reporting tools)
- Cross functional capabilities
- Referrals

# Thanks for your time!

**Will Robinson, CEO**

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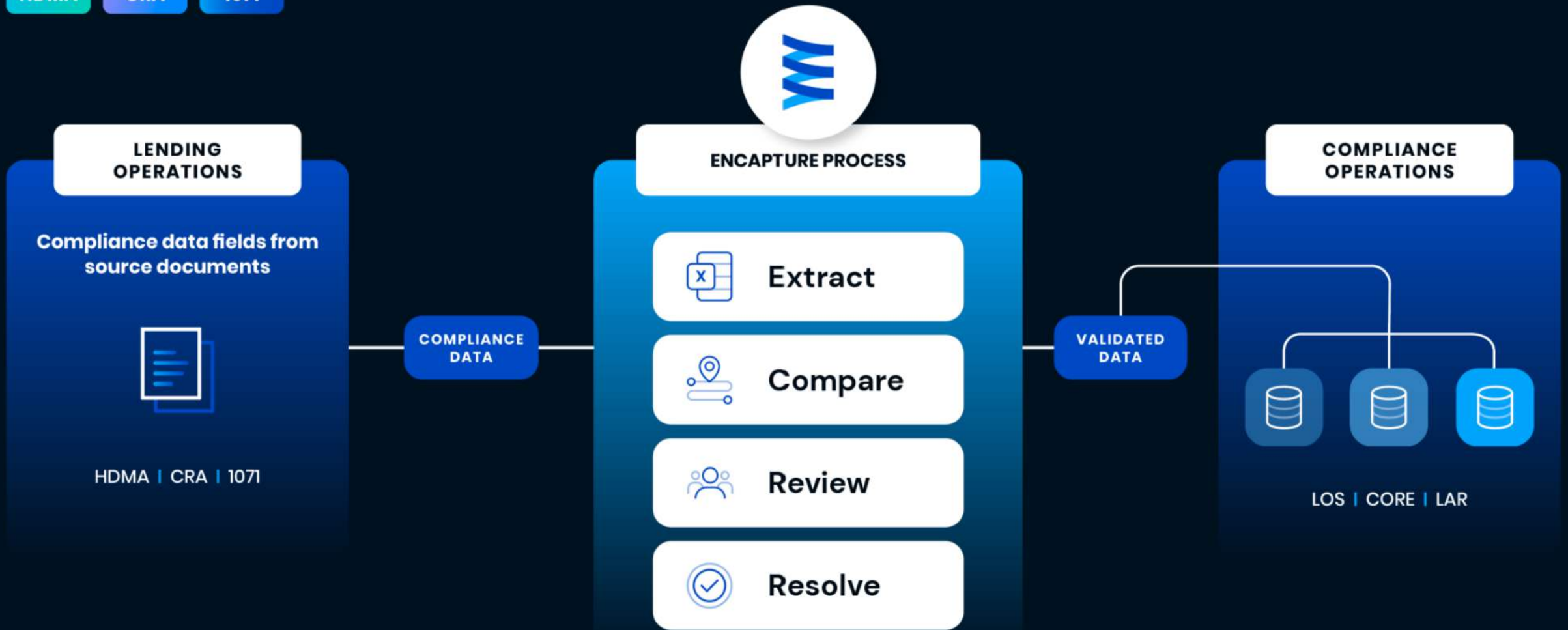
# Compliance workflow using machine learning



HDMA

CRA

1071



# Case study: HMDA LAR reporting automation



## Situation

The bank (\$17b assets, 200 branches, 5 states) struggled to efficiently and accurately reconcile their systems with the HMDA LAR annually. This bank required their corresponding lending partners (over 500) to manually index documents for every single submitted loan. Due to manual efforts, 20% of their loan data was incorrectly reported in the HMDA LAR, each loan package was taking 15 minutes to review manually, and their internal teams were getting overwhelmed and could not keep up with growing volumes.

## The Results

- Sub 2-min loan review time (compared to 15 mins each manually)
- Eliminated data entry errors and provides audit history
- 100% of loans are systemically reviewed to ensure accurate LAR and LOS
- 86% increased efficiency with a minimal human review of loan docs and LAR data

## What does it really mean?

Now, all reviews are handled by the compliance team (vs loan officers getting involved) and there is an increase in correspondent lender satisfaction because they eliminated the need to index documents (Encapture automatically indexes and extracts key data from loan packets and comparing it to the system of record and LAR). Now, Encapture alerts the review team for any discrepancies that require further analysis and watches for additional documents that arrive after the review process to ensure systems are always 100% accurate.