



LoanFlow: The Next Generation Loan Origination Ecosystem Powered by infloens and Encompass Integration

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Overview

In today's highly competitive mortgage industry, lenders are constantly looking for innovative ways to streamline the loan origination process, reduce costs, and improve customer & employee experience. Infloens and Encompass are two powerful platforms that help lenders achieve these goals. Infloens is a next-generation loan origination platform built on the Salesforce backbone that leverages the latest advances in automation, robotics, and artificial intelligence with an inviting and intuitive UX. Encompass is a mortgage loan origination system that provides a compliant solution for managing the loan process from origination to closing. This paper describes a bidirectional integration between Infloens and Encompass that provides lenders with a comprehensive solution for efficiently managing the loan origination process.

Goals

1. **Streamline loan origination process:** The primary goal of this integration is to streamline the loan origination process for lenders. By integrating Infloens and Encompass, lenders can eliminate manual processes, reduce errors, and improve the overall efficiency of loan origination.
2. **Improve customer experience:** The integration also aims to improve the customer experience by providing real-time updates on loan status and eliminating the need for customers to provide the same information multiple times. This can help to reduce the time it takes to close a loan and increase customer satisfaction.
3. **Increase productivity:** By automating many of the manual processes involved in loan origination, the integration can help to increase productivity for lenders. This can enable lenders to process more loans in less time and with fewer resources, ultimately reducing costs and increasing profitability.
4. **Ensure compliance:** The integration also aims to ensure compliance with relevant regulations and standards. By using Encompass as the system of record and the system of compliance for document generation, lenders can be confident that their loan origination processes meet all necessary requirements.
5. **Enable better decision-making:** Finally, the integration aims to enable better decision-making by providing lenders with real-time access to critical loan information. By leveraging the latest advances in automation, robotics, and artificial intelligence, lenders can make faster and more informed decisions throughout the loan origination process.

Functional Specifications

I. Encompass to infloens Integration

The Encompass to infloens integration is the backbone of the bidirectional integration between infloens and Encompass. It is the most comprehensive and robust integration available in the market today. The integration leverages the Encompass webhooks and API capability to push updates from Encompass to infloens in real-time. Asynchronous batches process the updates and populate data objects in infloens in continuous intervals.

The integration supports the following data objects:

1. **Loan** – The loan object contains all the information related to the loan, including borrower information, property information, loan amount, and loan terms.
2. **Borrower** - When a new loan file is transmitted to infloens, infloens runs through dedupe logic to identify if a corresponding borrower exists. If it finds a matching borrower, infloens creates a new loan for the borrower and updates borrower information. If borrower does not exist, infloens creates a new borrower and creates and associates the loan to the borrower.
3. **Collections** – The collections object contains information about borrower income, assets, and liabilities associated with the loan.
4. **Loan Milestones** – The loan milestones object contains information about the status of the loan, including loan origination, processing, underwriting, closing, etc.
5. **Loan Conditions** – The loan conditions object contains information about the conditions required to approve the loan, including preliminary and underwriting conditions.
6. **Documents** – The documents object contains information about the documents required for the loan, including the physical attachments, document types, document status, and document upload dates.
7. **Third-Party Services** – The third-party services API facilitate ordering of third-party services from infloens used in the loan origination process, including credit reports, title reports, and appraisal reports. The data retrieved from such services is stored in corresponding collections objects.
8. **Conversation Logs** – The conversation logs object contains information about all conversations related to the loan, logged by the origination team.

II. infloens to Encompass Integration

The Infloens to Encompass integration is the other half of the bidirectional integration between infloens and Encompass. Asynchronous batches queue updates from infloens to Encompass without users having to click buttons to push updates to Encompass.

The integration supports the following data objects:

1. **Loan** – The loan object contains all the information related to the loan, including borrower information, property information, loan amount, and loan terms.
2. **Collections** – The collections object contains information about borrower income, assets, and liabilities associated with the loan.
3. **Loan Milestones** – The loan milestones object contains information about the status of the loan, including loan origination, processing, underwriting, closing, etc. Loans can be updated in infloens which return a success message back from Encompass or validation errors that Encompass encounters in processing the milestone change. Such validation errors are returned back to the user via the infloens UI in a user friendly manner so that the user can attempt to address the errors and resubmit the milestone change request.
4. **Loan Conditions** – The loan conditions object contains information about the conditions required to approve the loan, including preliminary and underwriting conditions.
5. **Documents** – The documents object contains information about the documents required for the loan, including document types, document status, and document upload dates.
6. **Conversation Logs** – The conversation logs object contains information about all conversations related to the loan, logged by the origination team in context of documents and conditions.

Integration Object	How information flows from Encompass to infloens	How information flows from infloens to
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		Encompass
Loan	We have a Webhook subscription for loans. When a loan is created or Updated in Encompass a webhook notification is generated, Infloens subscribes to the webhook notification and generates an inbound record in a staging table called "Webhook Message." This record is then processed by a scheduled batch job called "IntEncLoanFieldReaderBatch" every x* minutes, which creates or updates the loan in infloens.	Whenever changes are made to a loan by a loan officer or processor, an outbound entry is generated in the staging table "Webhook Message" in infloens. This entry is then picked up by a scheduled batch job called "IntEncLoanSyncBatch," which synchronizes the loan with Encompass. The job runs every x* minutes.
Documents	There are two jobs that transfer documents and their attachments from Encompass to Infloens. The first job, called "IntEncFetchDocumentsBatch," retrieves the document structure from Encompass. The second job, called "IntEncFetchAttachmentsbatch," retrieves the attachments associated with those documents, including any unassigned attachments. These jobs run every x* minutes after the field reader batch.	Once a loan officer or processor designates a document as "Accepted", we proceed to send the document's information to Encompass. This involves creating the document within Encompass and subsequently attaching the corresponding file to it.
Underwriting Conditions	Our system is set up with a Webhook subscription that enables us to receive notifications for any updates or creation of underwriting conditions in Encompass. When such an event occurs, a subscription is generated, infloens receives a notification and creates an inbound record in the staging table, "Webhook Message". This record is subsequently picked up by a scheduled batch job,	Whenever there is a change in the status of a condition, a document is assigned to the condition, or a comment is added to it, a condition synchronization process takes place.

	"IntEncFetchLoanDetailsBatch", to create or update conditions in infloens based on the data from the record. This batch job runs every x* minutes.	
Preliminary Conditions	Our system is set up with a Webhook subscription that enables us to receive notifications for any updates or creation of preliminary conditions in Encompass. When such an event occurs, a subscription is generated, infloens receives a notification and creates an inbound record in the staging table "Webhook Message". This record is subsequently picked up by a scheduled batch job, "IntEncFetchLoanDetailsBatch", to create or update conditions in infloens based on the data from the record. This batch job runs every x* minutes.	Whenever there is a change in the status of a condition, a document is assigned to the condition, or a comment is added to it, a condition synchronization process takes place.
Post Closing Conditions	Not Applicable in current scope	Whenever there is a change in the status of a condition, a document is assigned to the condition, or a comment is added to it, a condition synchronization process takes place.
Milestones	To retrieve milestone details of loans, we have a batch class called "IntEncMilestoneInfoBatch". This batch is executed through the FieldReader job, "IntEncLoanFieldReaderBatch". The FieldReader job runs every x* minutes.	Whenever a loan officer or processor updates the milestone of a loan, we send the corresponding updates to Encompass.

Collections	We have a scheduled job which brings collection data of processed loans. This job brings data related to Assets, Other Assets, borrower's & Co-Borrower's employments, Liabilities, Other Liabilities etc.	If a loan officer or processor adds or updates a collection record for a loan, such as assets, liabilities, or employment details, a flow is triggered that creates an outbound entry in the staging table (Webhook Message) in infloens. This record is then picked up by a scheduled batch job called "IntEncLoanSyncBatch", which synchronizes the collections with Encompass every x* minutes.
Service Order Status	In infloens, when a Loan Officer requests 3rd party services, the relevant information is passed to Encompass so Encompass can make the calls to the service providers and bring back information	

x* configurable based on client needs

Configurable Framework

One of the key features of the LoanFlow integration is its configurable framework built in infloons, which enables lenders to customize the integration to meet their specific needs.

One important aspect of the configurable framework is the field reader and field writer capabilities. These capabilities allow for seamless transfer of data between infloons and Encompass, ensuring that all relevant information is captured and reflected in both systems.

I. Field Reader

The field reader is designed to read fields inbound into infloons from Encompass. This is accomplished using a JSON mapping framework that is highly configurable to accommodate any objects and corresponding fields in infloons. As long as the corresponding Encompass API supports the needed information, the field reader can capture and transfer the data to Infloons.

II. Field Writer

Similarly, the field writer capability allows for information to be written in Encompass fields from infloons. This is also accomplished using the same JSON mapping framework, which can be easily configured to write data to the appropriate fields in Encompass.

Together, these capabilities ensure that lenders have access to the most up-to-date information at all times, regardless of where the data originates. Thus enabling lenders to make faster and more informed decisions throughout the loan origination process, while also reducing the risk of errors and duplicative data entry.

Dynamic Workflow

The LoanFlow integration between infloens and Encompass allows lenders to generate dynamic tasks in infloens based on unique twists and turns in the loan's journey and assign them to the right people considering the associate's persona, their bandwidth, availability, and velocity. This approach creates incredible levels of efficiencies in the loan production process and eliminates dependencies on supervisors to manually assign tasks, monitor progress, and tend to associate queries. The training on how to perform tasks is embedded within the tasks in the form of dynamic checklists. The checklists themselves are dynamic and are generated based on the data points collected by various systems and made available to infloens via integration with Encompass.

The dynamic task assignment process is enabled by the infloens platform's intelligent workflow engine, which takes into account various parameters such as loan type, loan amount, credit score, property type, and other relevant factors. The workflow engine uses this information to automatically generate the necessary tasks and assign them to the appropriate individuals, ensuring that the loan origination process moves smoothly and efficiently.

In addition, the dynamic task assignment process allows for real-time updates to be made to the loan origination process, as changes in loan conditions, loan milestones, and other relevant factors are automatically captured and reflected in the assigned tasks. This eliminates the need for manual updates and ensures that everyone involved in the loan origination process is working with the most up-to-date information.

Technical Details

infloens makes every effort to limit API calls to sync loan, document, milestone and condition records by utilizing defensive coding style as well as Ellie Mae's best practices.

Access Token Management (Authentication)

infloens will obtain an Access Token with the below API Request and Request body:

Access Token API → POST: <https://api.elliemae.com/oauth2/v1/token>

Request Body: →

grant_type: password

scope:lp

client_secret:{{client secret obtained from Ellie Mae}}

client_id:{{client id obtained from Ellie Mae}} instance_id:{{instance id of Lender's Encompass data}}

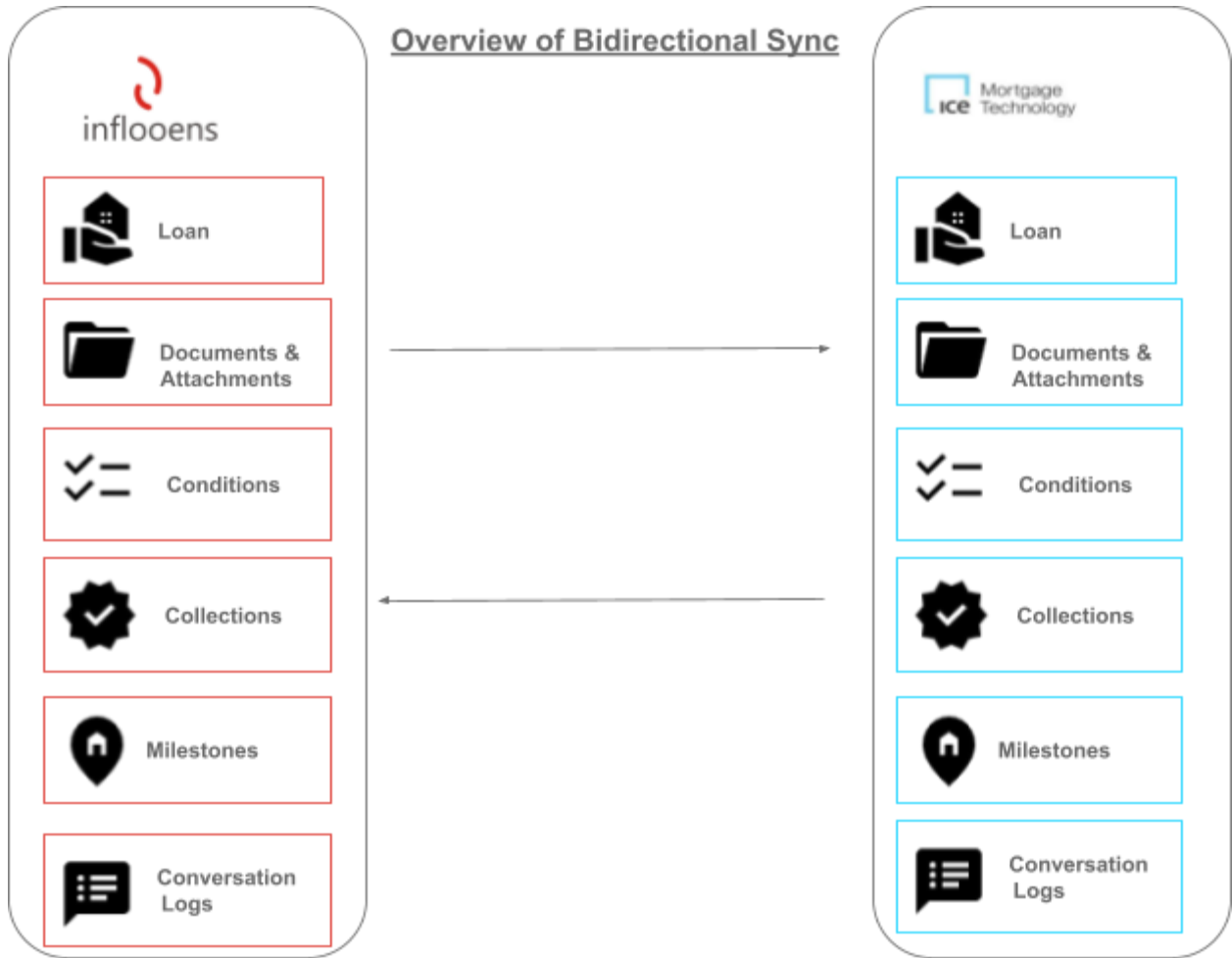
Since the Lender owns the infloens Instance and Data, they will be responsible for maintaining the Instance ID, Client ID and Secret in Custom Settings, as well as the Username and Password in Named Credentials.

Concurrency Check

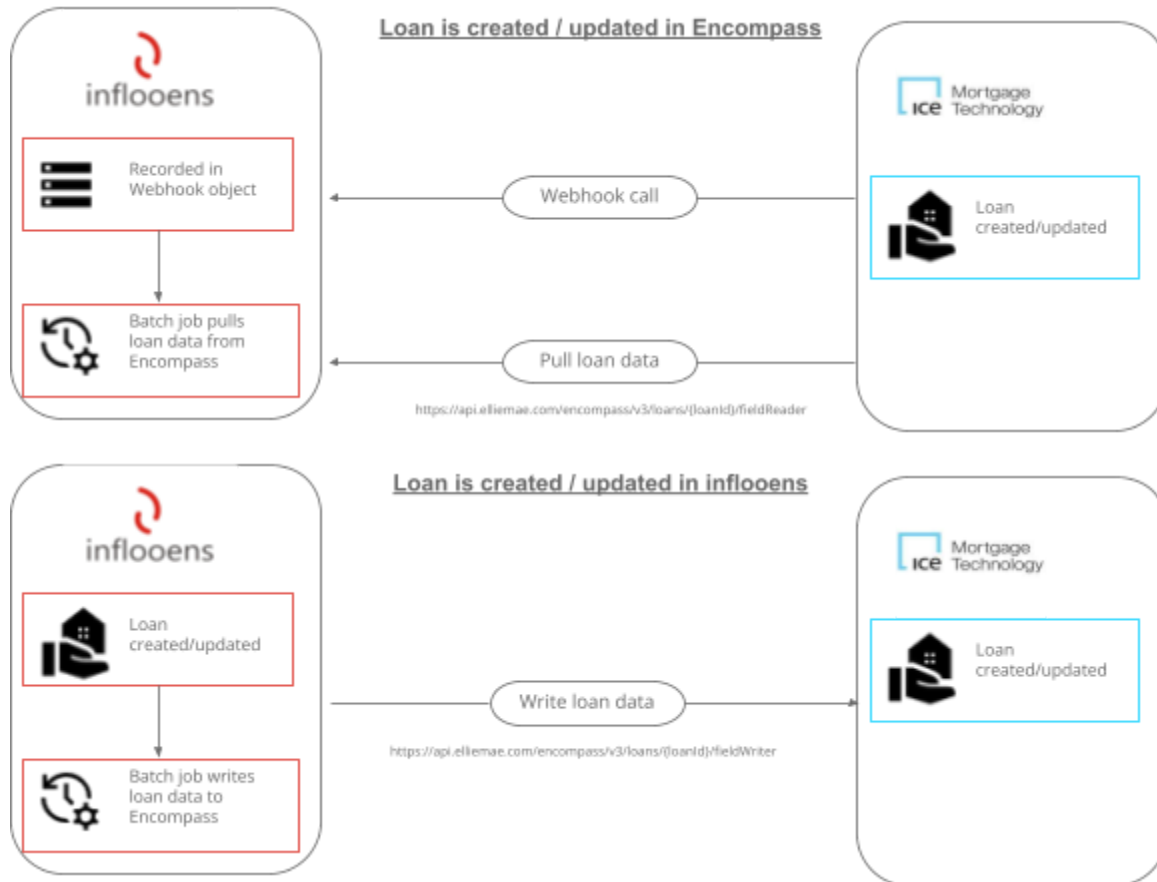
infloens will check the number of concurrent API calls we have, and if the calls ratio goes above 20%, then we will wait for a few seconds before making the next API call. This wait time will be specified in a custom setting

The section below outlines the APIs used for data interchange between infloens and Encompass.

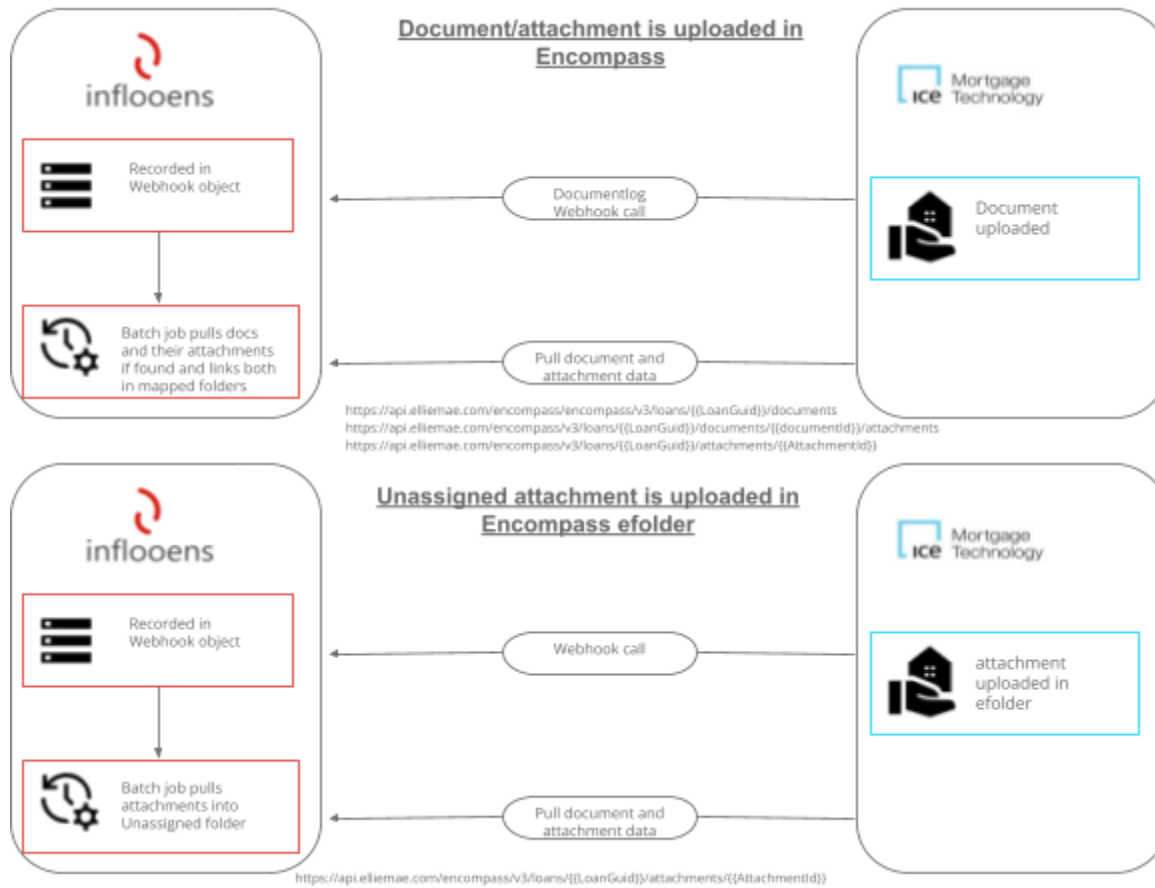
Bidirectional Integration



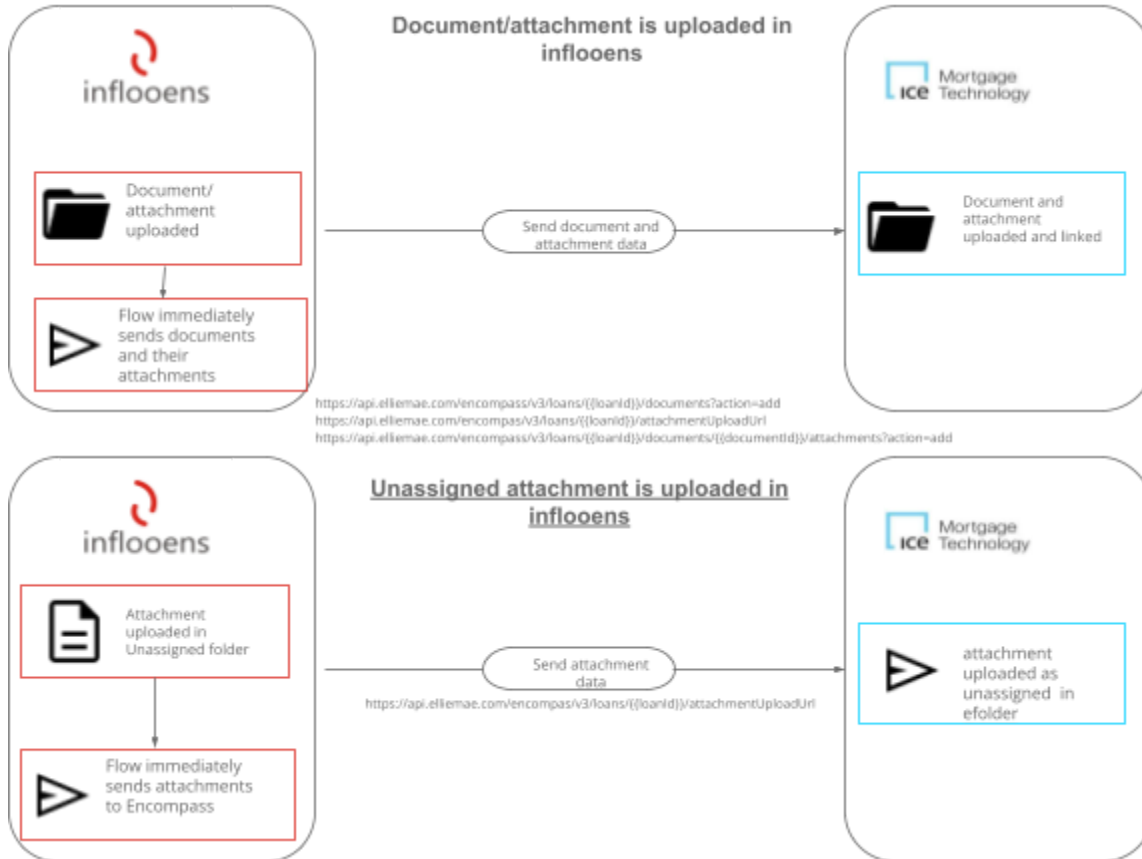
Loans Integration



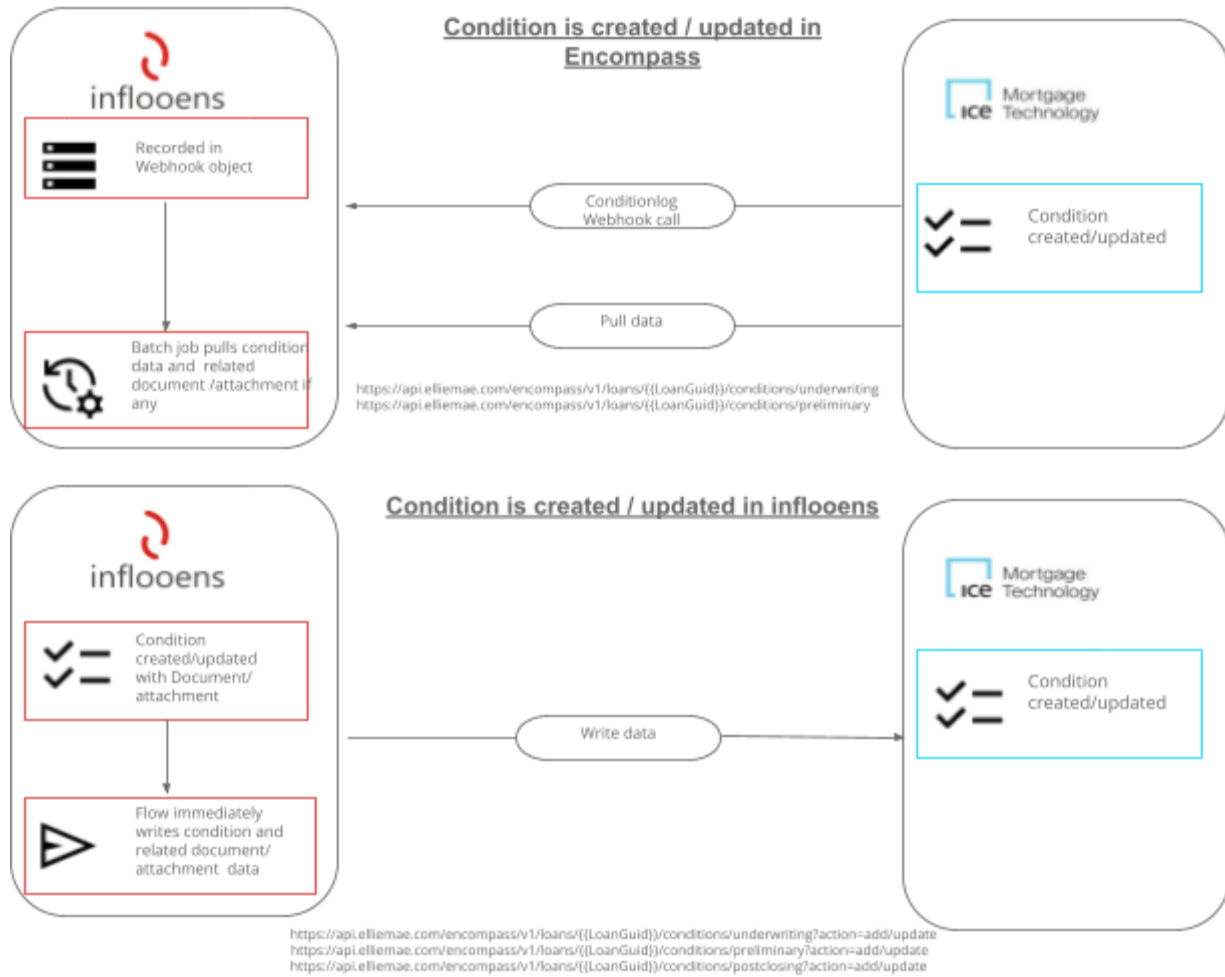
Documents Integration



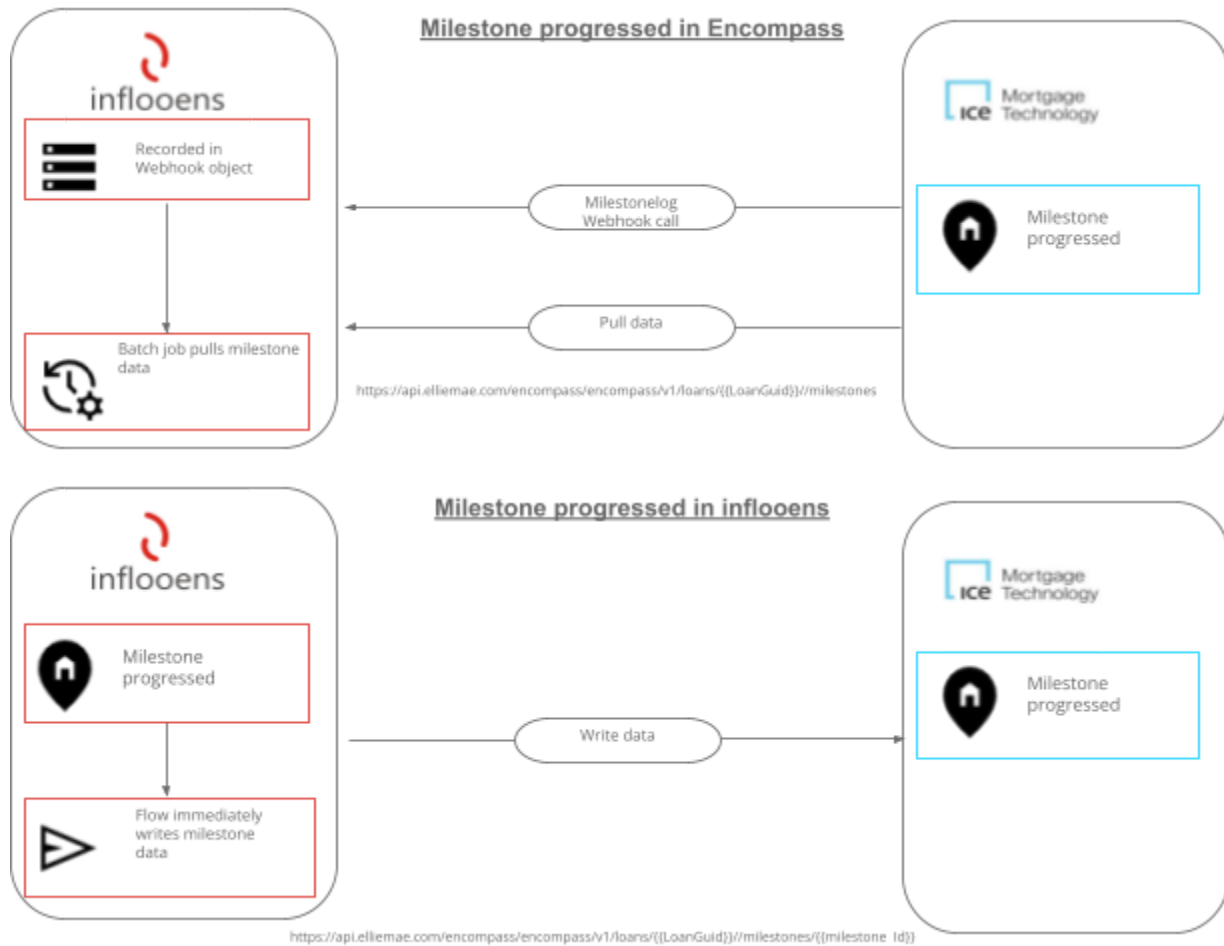
Documents Integration continued



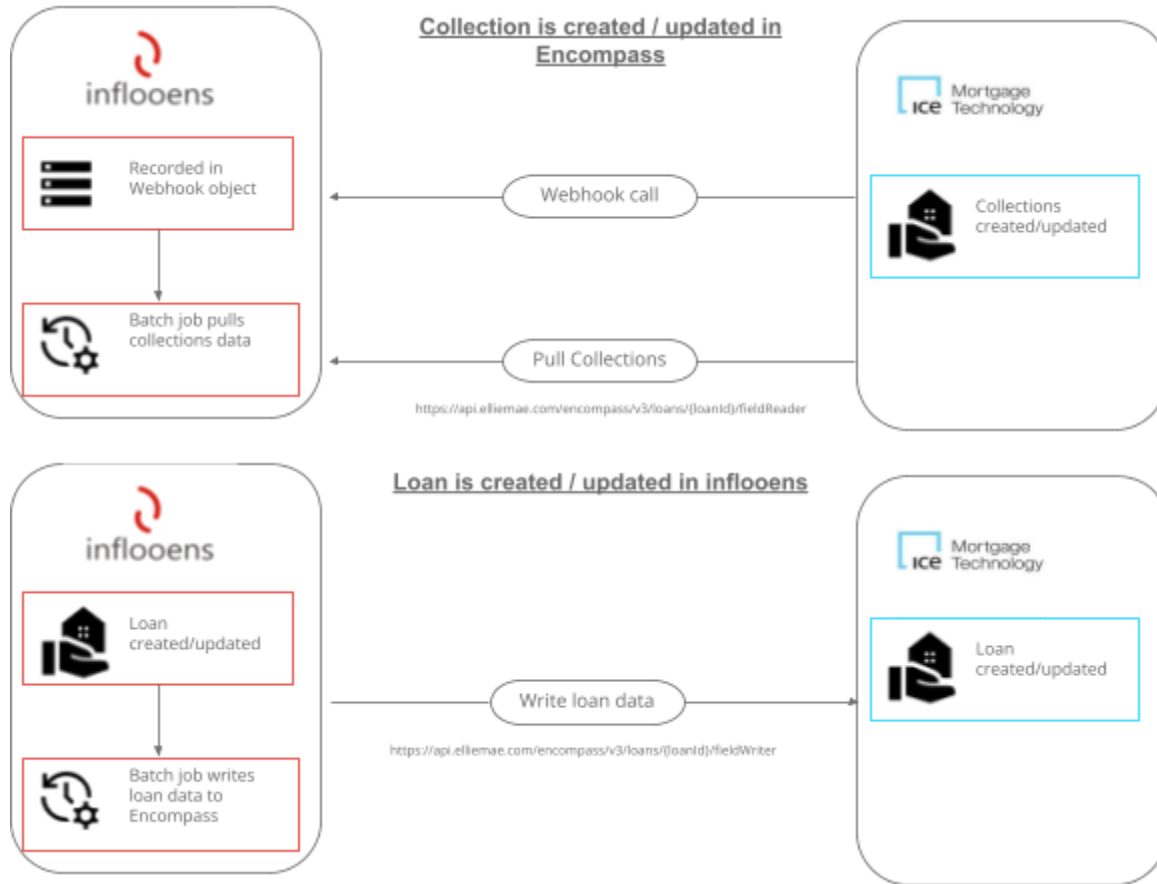
Conditions Integration



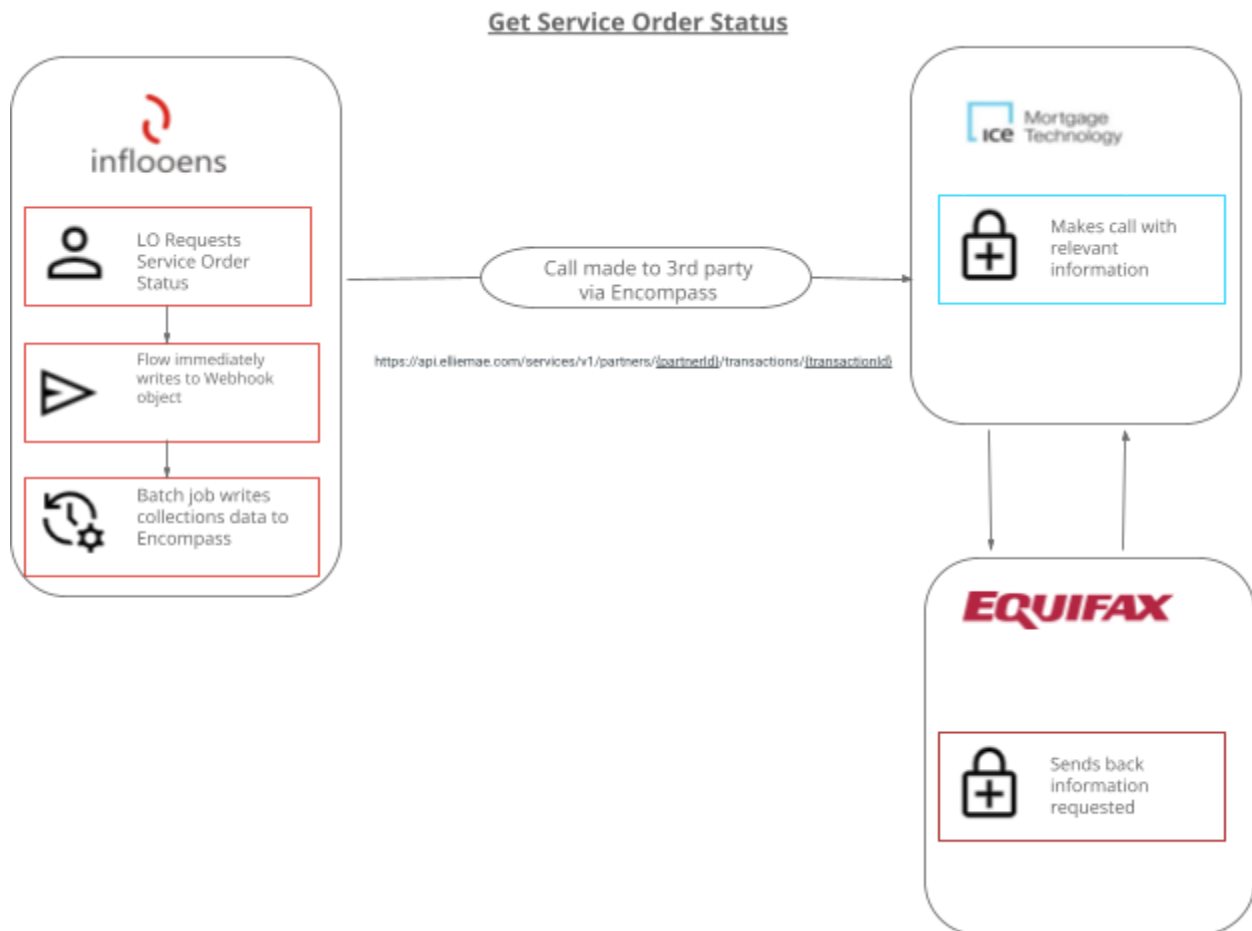
Milestones Integration



Collections Integration



Service Order Integration



Conclusion

LoanFlow is a powerful tool for lenders looking to streamline their loan origination process, reduce costs, and improve customer experience. The integration provides a comprehensive solution for managing the loan origination process, with real-time updates and dynamic workflow automation capabilities that enable lenders to be more efficient and effective in their operations. By leveraging the latest advances in automation, robotics, and artificial intelligence, the partnership between Inflorens and Encompass are helping to transform the mortgage industry and make the loan origination process faster, easier, and more cost-effective.