How one MFI in Kenya integrated multiple third-party solutions into the Musoni CBS

musoni

Digitalisation partner for microfinance

Integrations into Musoni

In the last five years new **digital financial services** have been launched, internet connectivity has improved and smartphone ownership has risen. Customers want to interact with their financial organisation online, through their phone or through agent and ATM networks. Lending decisions are increasingly automated through credit bureaus and credit scoring. Banks and MFIs need to move quickly to retain their **competitive edge**.

Musoni has been designed to allow fast and straightforward external integrations using modern web technologies such as Rest APIs and Webhooks. Complete API documentation is available, showing detailed API calls for any action and providing example responses for all system functionality. This enables MFIs to quickly and easily launch new products and services for their clients, while taking advantage of the latest developments in the market.

One organisation who has done this especially well is Musoni Microfinance in Kenya. This case study gives an introduction into how Musoni Microfinance has integrated a range of third-party solutions with the Musoni core banking system, and the benefits it has brought to their organisation and clients.
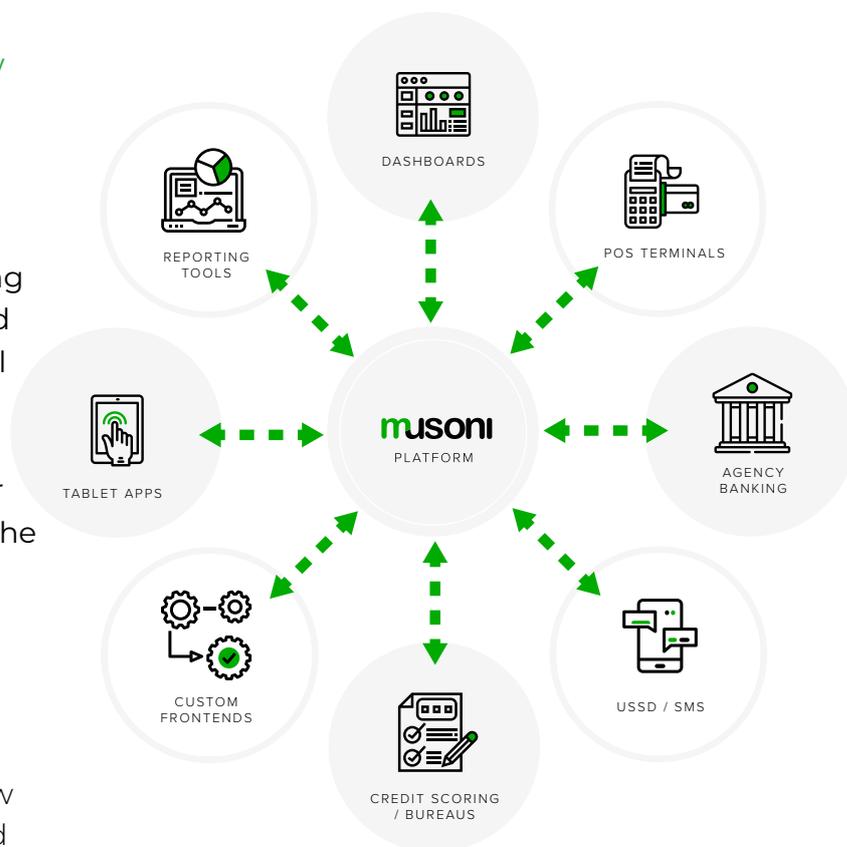
Musoni's open APIs enable straightforward integrations with multiple solutions

The Customer – Musoni Microfinance

Musoni Microfinance is one of the leading MFIs in Kenya, known for its cashless, paperless and data driven approach. One of the ways in which they have been able to remain at the forefront of using technology in microfinance has been to continue innovating with new channels and solutions.

63% female clients | 50% youth | 48% rural outreach | 25 locations

Musoni Microfinance serves over 80,000 customers across the whole of Kenya, providing them with a range of loan, savings and non-financial support services. While Musoni Microfinance and Musoni Services were once linked, the two companies completely separated in 2013, and the MFI started licensing its technology from Musoni.

An overview of the different integrations

Musoni Microfinance has always used the Musoni core banking system, mobile money integration, SMS module and digital field application. These are provided as standard by Musoni to any MFI licensing its software.

In addition, Musoni Microfinance has integrated a number of third-party applications into the core banking system using the standard APIs provided by the Musoni team. These integrations not only resulted in further process automation for both clients and back office, but also helped increase client satisfaction, and reduce overheads. Some examples of these integrations include a document management system, integration with the Kenyan CRB, a USSD menu for end customers, and an m-survey tool for communication.

In this case study we will focus on two of these solution integrations:

- USSD menu developed in partnership with Onfon (https://onfongroup.com/kenya/index.php) to provide additional services to customers on their phones

- Ajua (https://ajua.com) Survey tool to communicate directly with their customers

In each integration, the project was managed entirely by the MFI and the solutions provider, leveraging the standard Musoni API documentation.
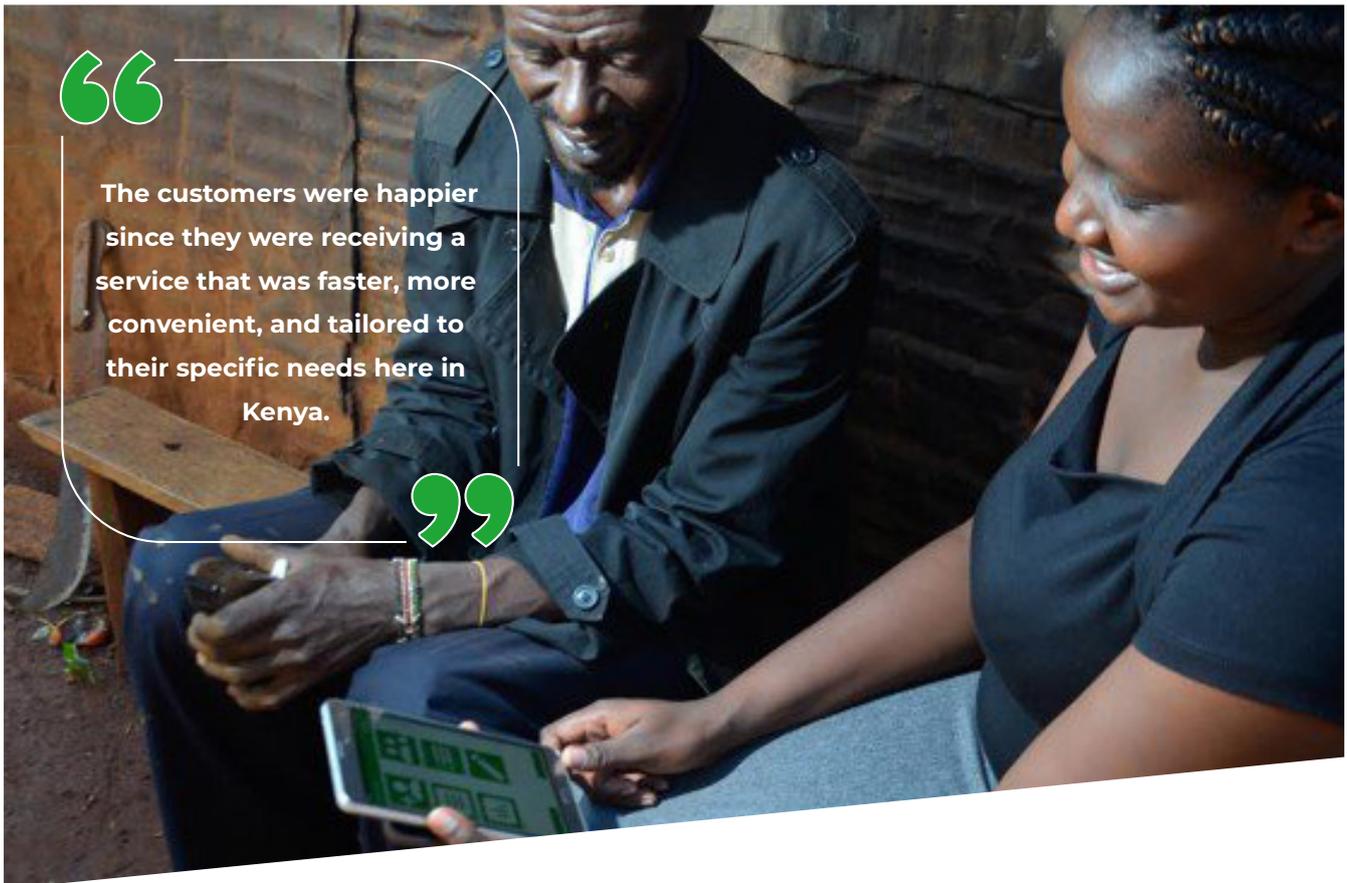
> The customers were happier since they were receiving a service that was faster, more convenient, and tailored to their specific needs here in Kenya.
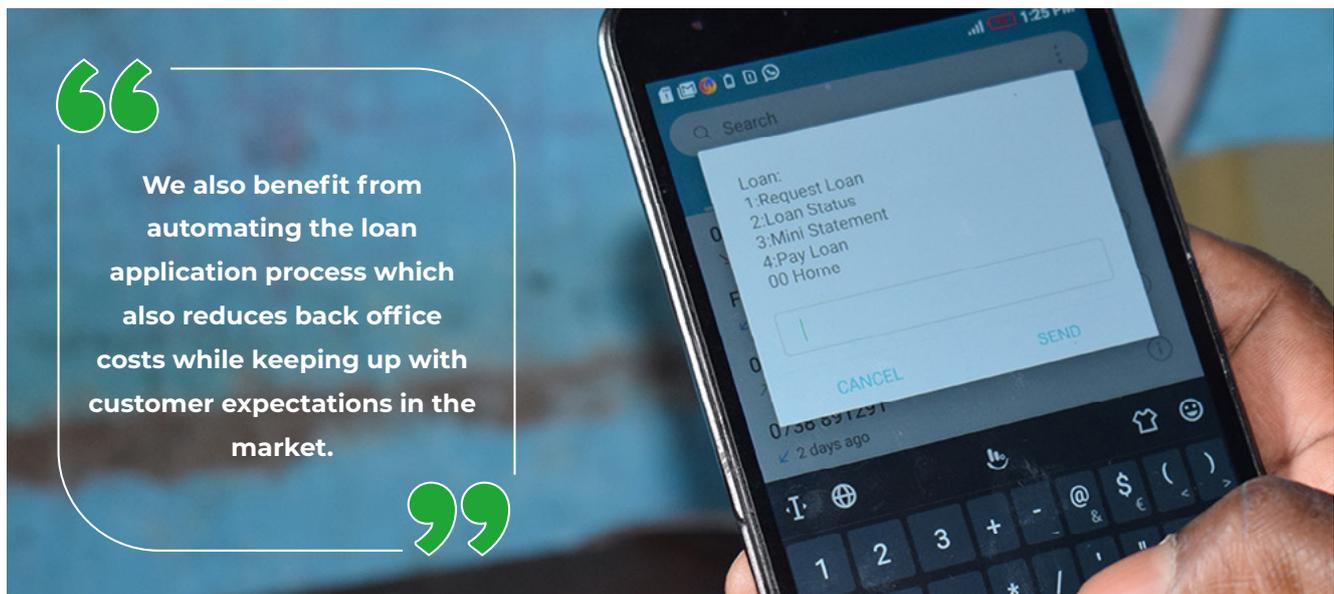
How and why?

Mr. Zakayo Wambua, Chief Technology Officer at Musoni Microfinance Kenya, was tasked with several integrations into the core Musoni banking system. The goal was to continue moving the company towards a fully automated model. By leveraging the standard Musoni integration tools, APIs and webhooks, Wambua and his team were able to automate most of the back-office processes and administrative tasks that are often so cumbersome and costly to financial institutions.

"By integrating several solutions on top of the Musoni core banking system, we were able to greatly reduce costs. Our Document Management System (DMS) integration helped us reduce loan processing times, and mitigated the loss of documents during transport," said Wambua during our interview. "The customers were happier since they were receiving a service that was faster, more convenient, and tailored to their specific needs here in Kenya."

"Our SMS notification integration kept our clients up to date on their applications and when the finances were going to be released. CRB integration meant we could automate credit verification by connecting directly to the CreditInfo CRB (https://ke.creditinfo.com/) in Kenya. This reduced the need for human intervention and saved our staff countless working hours."

USSD Menu for automated loan applications

Many of Musoni Microfinance's customers do not own smartphones, and so the standard client facing app provided with the Musoni core banking system could not be used. To get around this problem, the MFI worked closely with a Kenyan solutions provider (Onfon) in order to develop a new USSD menu that would provide additional services to all of their clients at any time.

> We also benefit from automating the loan application process which also reduces back office costs while keeping up with customer expectations in the market.

Through the USSD menu, clients can find out information about their accounts (including balance enquiries), make repayments straight into their loans, and also apply for new loans directly from their phone. Loan applications are processed in real time, with smaller loans frequently automatically approved depending on the customers loan history (and the MFI's custom loan processing rules), and larger loans going through a human loan appraisal process.

The USSD menu is integrated directly into the Musoni core banking system using the standard Musoni APIs. When a client submits a balance enquiry on their phone, the USSD solution immediately queries the core banking system and return the results directly to the client's mobile phone. Loan applications from the USSD menu work in a similar way, with the loan being pushed into the core banking system with seconds of the application being created.

Speaking about the integration, Wambua stated that "Musoni's open API layer and excellent API documentation made it very easy for us to guide the Onfon team on how they should integrate with the core banking system. As a result the whole project was completed in under three months."

The USSD menu has been an unqualified success, resulting in a high quality services to customers, with reduced back office costs and improved efficiency. In the last six months alone, Musoni Microfinance has received over 5,000 balance enquiries, 40,000 loan repayments and 100,000 loan applications, full automatically.

Stanley Munyao, CEO of Musoni Microfinance said that "With the launch of the USSD menu we have seen major shifts in how clients interact with us. The menu is available 24/7 which means that clients do not have to leave their business to go to a branch or call the loan officers for queries such as loan balances and statements. We also benefit from automating the loan application process which also reduces back office costs while keeping up with customer expectations in the market."

Ajua mobile survey tool

To increase interaction with end customers, and gain an improved understanding on their requirements, Musoni Microfinance worked with Ajua to carry out automated mobile surveys with their end customers. The MFI's development team worked with both the standard Musoni APIs, and also the Ajua APIs to automate which clients would be surveys, and what events would trigger a client being asked to complete a survey.

Since launching with Ajua in XXXX, over 45,000 surveys have been carried out, managing anything from customer satisfaction with the onboarding or loan application process, to measuring the impact of COVID-19 on livelihoods. The breakdown of surveys carried out in 2020 is shown below:
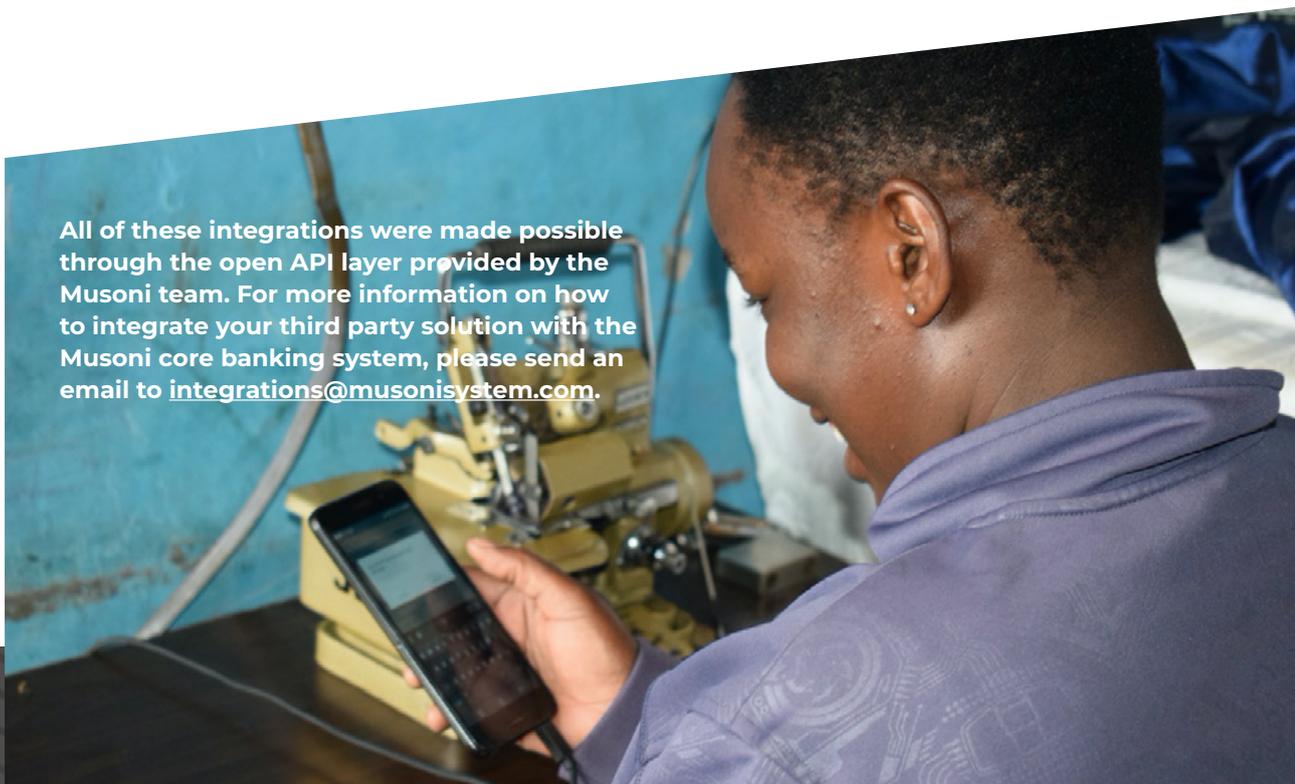
S/No.	Survey	Responses/ Engagement
1	Staff Survey	367
2	Loan Disbursements	14,200
3	Contact center Tickets	3,500
4	Client Onboarding	8,500
5	Covid-19	19,700

Speaking about the integration, the Ajua team explained that "Once surveys for Musoni were set up on Ajua's dashboard, they were automated to be triggered by customer events on Musoni's system. For this events-based survey triggering, Musoni is integrated to Ajua API so as to submit the list of participants who have done a predefined event and therefore eligible to receive a survey: This meant that Musoni had to develop an integration program to send transactional requests to Ajua's client API."

Wambua added "integrating the core banking system with Ajua's survey tool was a straightforward process. We used the standard set of APIs provided by each company, and developed a simple solution in-house to manage the communications between the two."

Conclusion

For Musoni Microfinance, the integration of 3rd party solutions has reduced back office costs, in particular as a result of the USSD menu and document management system. Customers' satisfaction has greatly improved, and the work carried out by both the Field Officers and back office staff has been made more efficient. The MFI now has a greater understanding of how their customers benefit from the services provided as a result of the Ajua m-survey tool. This information is used to continue tweaking and adding new services in the future.

All of these integrations were made possible through the open API layer provided by the Musoni team. For more information on how to integrate your third party solution with the Musoni core banking system, please send an email to integrations@musonisystem.com.

Musoni API Documentation

RESTful API

All functionality in the Musoni System is accessible via a RESTful API. These API's can be used to develop both simple, and more advanced integrations with external systems. The online API documentation provides third parties with sample calls and the possible responses, enabling straightforward development and troubleshooting.

The complete online API documentation can be found here: https://demo.musonisystem.com/api-docs/apiLive.htm

Webhooks

Webhooks are a common mechanism to provide real-time notifications to external systems. Whenever pre-configured actions take place, the Musoni System will also send a request to the external system. This HTTP GET Request contains a JSON object providing basic information about the operation that was performed. The system will send the following headers along with each Webhook request as well to enable the receiving system to identify the type of action that was performed. For more information about which actions can be linked to webhooks, please contact hello@musonisystem.com