



REVOLUTIONIZING SUSTAINABILITY IN WATER SERVICE DELIVERY

Increase your revenue with 50-200%
and get access to data





THE WATER CRISIS

The Challenge:

After 3-5 years 42% of water supply systems are non-operational

Main Causes

- Lack of revenue collection
- High Operating Costs
- NRW is 45% (urban) and 70% (rural). We reduce to <10%
- Lack of transparency



Our all-in-one solutions

1. Prepaid water ATMs for communal water points



↔
Data from
Hub,
instructions
users
moving
back and
forth
↔



2. Prepaid & Smart water meters for individual connections



1) PREPAID METERS FOR COMMUNAL USE



- No operator needed: SAVE Kes 100,000 per year
- 24/7 access to water
- Improved revenue collection
- Online monitoring
- SMS alerts in case of problems
- Remote control



↔
Data from Hub,
instructions
users
moving
back and
forth
↔



Online dashboard water ATMs



Service provider: Naivasha Water

Project (region): All

Community (area): All

Hub: All

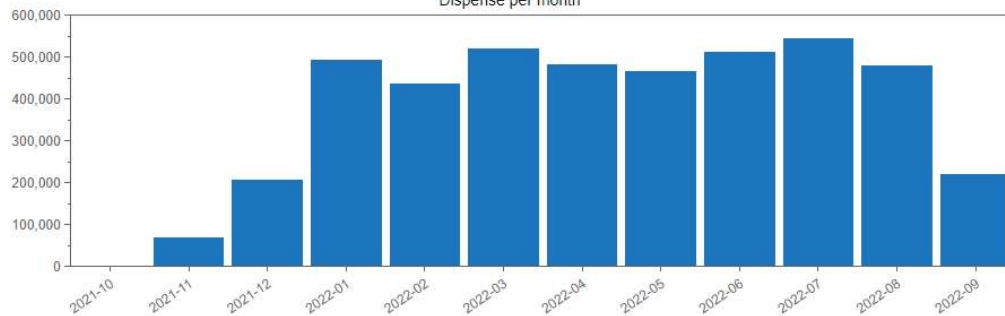
4,441,642 L

Total liters dispensed

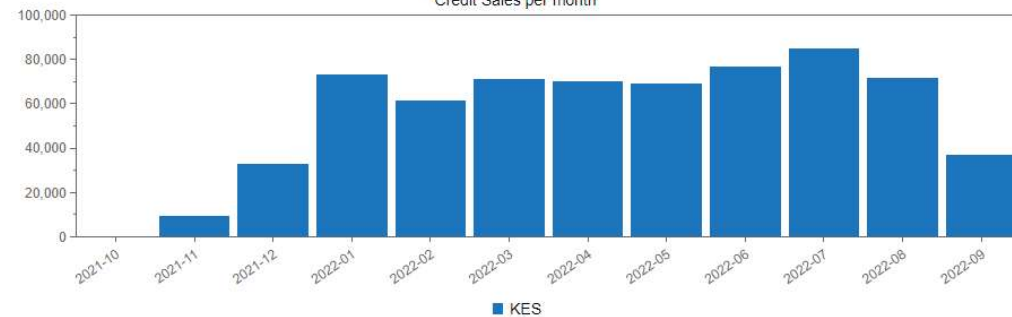
658,661.88 KES

Total revenue

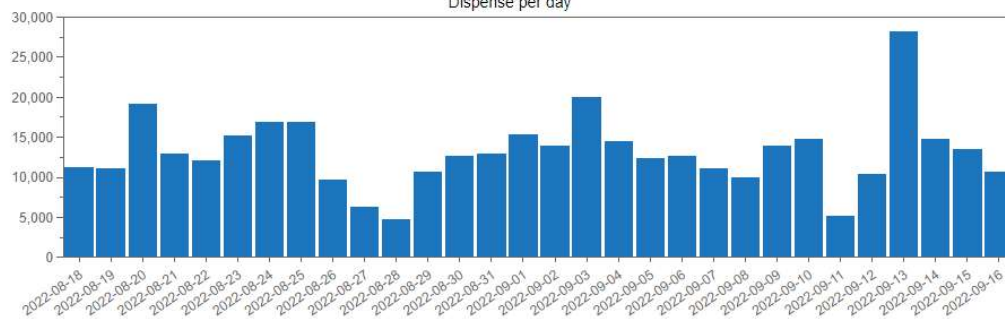
Dispense per month



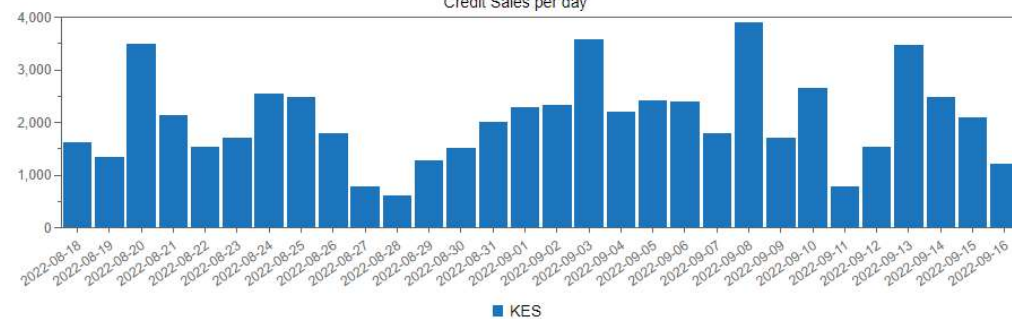
Credit Sales per month



Dispense per day



Credit Sales per day



Water ATMs for communal use



Standpipe, Kampala, Uganda



Mini Kiosk, Siaya, Kenya





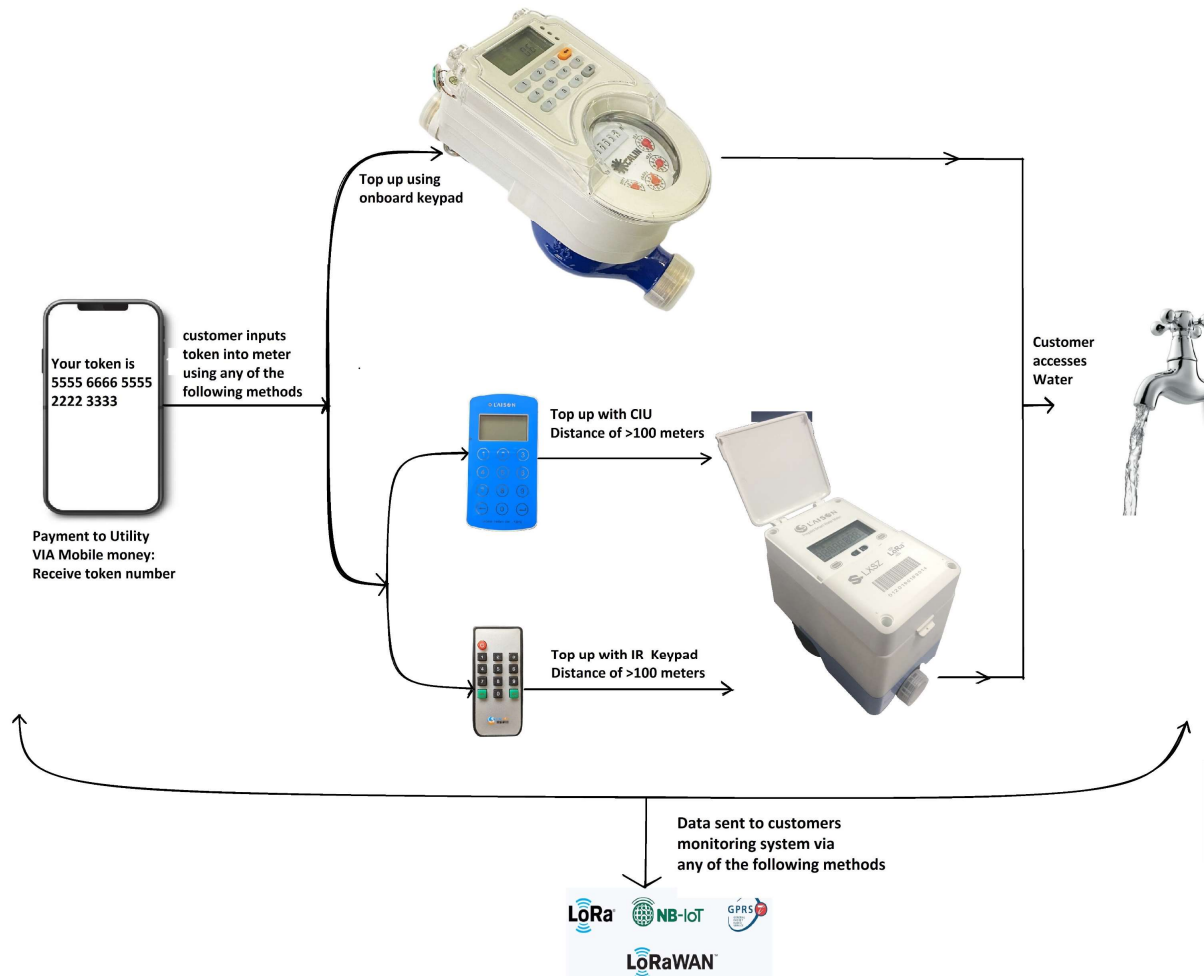
1 ATM – 2 WATER QUALITIES

- One tap for non-purified water at a low price
- Another tap for purified water at a higher.
- Water purification at kiosk level

And: different taps for different customers

- ✓ Small tap for purified water
- ✓ Medium tap for low-demand customers
- ✓ Big tap for cattle troughs, water bowers

2) Prepaid & postpaid meters for individual connections



Dashboard meters for individual connections



LAPIS prepayment meter system

Login management Daily operation Information query STS management AML management System setting Scheme management Help

Edit Customer info. X

Query condition

Date of opening account
 01/01/2013
 19/08/2020

Name
 Customer ID
 Tel.
 Meter No.
 012003500
 Customer No.
☐ Deleted

Query Export Edit customer info. Edit customer type Edit additional fee scheme

Set Meter Installation Parameters

128

Customer No.	Name	Customer ID	Tel.	Date of openin...	Customer ...	Debt	Meter No.	Physical address
1810000010	Charles Od...	0710992045	0710992045	16/10/2018 1:5...	Maji Milel...	0.0000	0120035000856	Naya
1907000011	Magdalene ...	1060	0719664893	25/07/2019 12:...	Maji Milel...	0.0000	0120035001060	Uyoma
1907000012	Sofia Ouma...	1045	0706293118	26/07/2019 3:0...	Maji Milel...	0.0000	0120035001045	Uyoma
1907000013	Timothy Ma...	1037	0719440535	26/07/2019 3:0...	Maji Milel...	0.0000	0120035001037	Uyoma
1907000014	John Mito...	1078	0722474038	26/07/2019 3:1...	Maji Milel...	0.0000	0120035001078	Uyoma
1907000015	Roda Anya...	1086	0708112960	26/07/2019 3:1...	Maji Milel...	0.0000	0120035001086	Uyoma
1907000016	Tom John A...	1052	0727912034	26/07/2019 3:1...	Maji Milel...	0.0000	0120035001052	
1907000019	George Od...	0211	0724490902	26/07/2019 3:2...	Maji Milel...	0.0000	0120035000211	Uyoma
1907000026	Peter Aloo...	0245	0702191541	01/08/2019 12:...	Maji Milel...	0.0000	0120035000245	Uyoma
1907000027	Fredrick Oti...	0719258043	0719258043	01/08/2019 12:...	Maji Milel...	0.0000	0120035000195	Uyoma
1907000028	Evans Odhi...	0229	0740711806	01/08/2019 12:...	Maji Milel...	0.0000	0120035000229	Uyoma
1907000029	Ishmael Od...	0722453626	0722453626	01/08/2019 12:...	Maji Milel...	0.0000	0120035000237	Uyoma
1907000033	George On...	0518	0723322093	02/08/2019 5:1...	Maji Milel...	0.0000	0120035000518	Uyoma
1907000035	Tito Kenned...	0534	0724293148	02/08/2019 5:2...	Maji Milel...	0.0000	0120035000542	Uyoma
1907000036	Francis Oriu...	11	0710526572	02/08/2019 5:2...	Maji Milel...	0.0000	0120035000534	Uyoma

MML-E | 127.0.0.1:8001 | V1.3.80.0 | 07/01/2021



(LoRa) STS Prepaid Meter

- Collection of old debts
- Monthly charges
- Online monitoring option via Gateway
- 6-years battery life



GPRS/NB-IOT/Lorawan STS Prepaid Smart Meter

- Online monitoring & control function
- Automatic push of token to the meter
- Remote open/close





Integrated STS Prepaid Water Meter



- On-board keypad on the meter
- Mobile Payment integrated
- Plastic and brass version
- Can be made Smart via Lora/Lorawan

Split STS Prepaid Water Meter



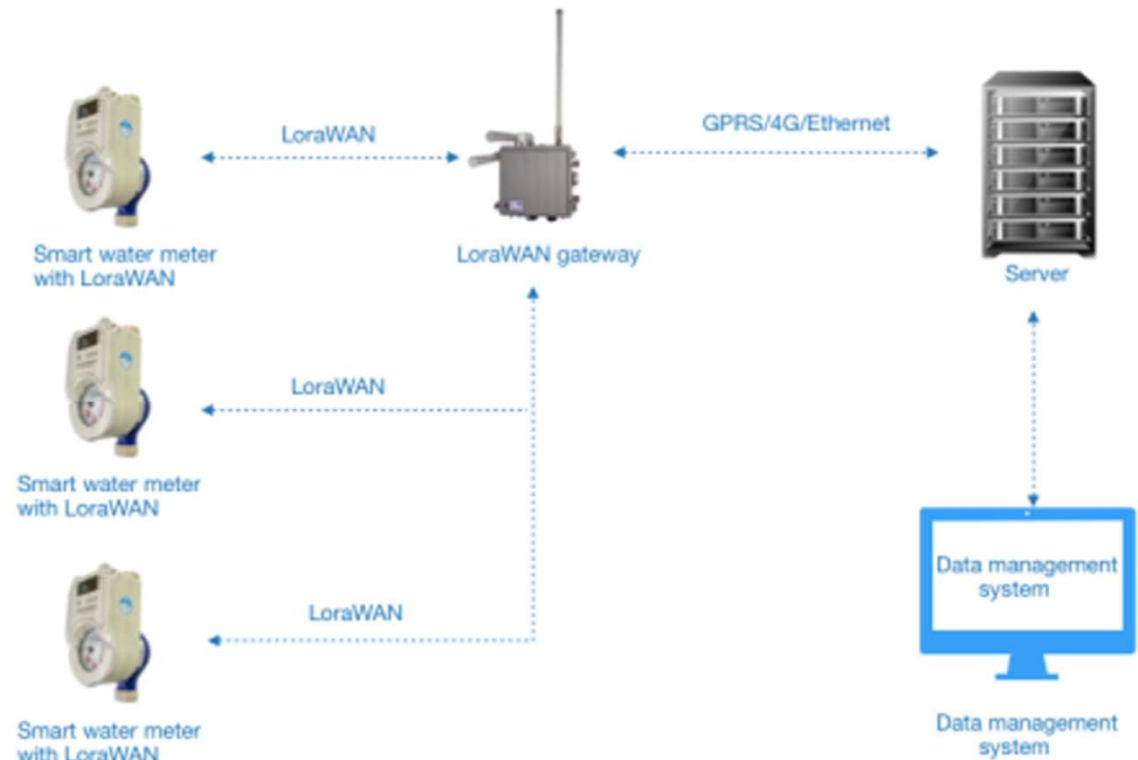
- Meter and CIU separated (CIU >150 meter)
- Mobile Payment integrated
- Plastic and brass version
- Can be made Smart via Lora/Lorawan

Smart Prepaid Individual Water Metering



- Remote automatic meter top up after token purchase
- Remote monitoring data
- Inbuilt leak detection ability
- LoRaWAN enables remote meter management efficiently (up to 5km radius)

LoRaWAN Prepaid Water AMI Infrastructure



Bulk Prepaid and Postpaid Smart Watering



RF Lora Woltman STS Prepaid Bulk Water Meter

- Sizes: DN 32-150
- For bulk dispensing points, e.g. water bowser dispensing points and industrial consumers



Laison IoT MIU Woltman Postpaid Bulk Water Meter 1

- Online monitoring data
- Useful for zonal metering



Our prepaid meters in the media and in independent reports. Some web-links



KTN news

Marsabit Project: <https://www.youtube.com/watch?v=bPQEFg9Yjz4&t=7s>

Interview with MD Maji Milele: <https://www.youtube.com/watch?v=iCJboZOPBtM>

Dutch TV & Youtube

Company profile (7 minute) <https://www.youtube.com/watch?v=bPQEFg9Yjz4&t=7s>

Documentary (43 minutes, Dutch) <https://www.youtube.com/watch?v=r27ohzvohd8&t=1290s>

Prepaid water meters for individual connections www.youtube.com/watch?v=ExACcaKaHzE&t=89s

Literature on prepaid water ATMs

Study: swiftconsortium.org/portfolio/water-atms-experience-and-impact-in-turkana-and-wajir-countries-of-kenya/

A short article: <https://www.oxfamamerica.org/explore/stories/atms-can-now-dispense-drinking/>

A short article: <https://www.fh.org/2019/03/22/kenya-clean-water-atm/>

Revenue recovery in Zimbabwe: <https://allafrica.com/stories/202201180108.html>

Where we work



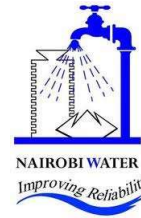


Maji Milele is also a Water Service Provider

Quick facts about Maji Milele as a WSP

- **We provide water for 90,000 people in Siaya County**
- **Project partners: Dorcas Kenya and Siaya county government.**
- **Operations: Maji Milele**

In Kenya



Netherlands Enterprise Agency

Outside Kenya





Thank you!

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Maji Milele profile video

https://www.youtube.com/watch?v=RdLvy_j79iQ