**WHAT IS IT?**

TokenTap is a low-cost and easy-to-maintain token based pre-payment system. It can be integrated in a water tower and enables cost-recovery of public water services. Fully mechanical, it is a robust system that delivers a fixed amount of water to the user when a token is inserted.

1. User inserts a **token** specifically designed for the payment system to avoid theft.

2. Other coins are rejected.

3. Once the token is inserted, the user pushes the handle in the upward position. Half of the **fixed amount** of water is dispensed. The handle is then lowered to the initial position to dispense the second half of the volume. For 20L this operation takes about 1 minute in total.
The low-cost but effective TokenTap improves the business case of water services.

**Technical features**

- System designed for 1 tap
- Accurate dispense through fixed volume of reservoirs (no calibration required)
- Insensitive to pressure change between 0.1 and 4 bar (2.9-58 PSI)
- Insensitive to sand or deposits in the water
- Mistake friendly: non-recognised coins are returned to the user
- Easy to maintain
- No electronics for main functionality (only for data logger)
- Low power data logging (battery last more than 1 year)
- App for easy data readout
- Remote area proof: network coverage on water point location not required

TokenTap is a mechanical pre-payment technology with a built-in monitoring device.

Technical drawing of the backside of the water system (normally enclosed in the water tower)
“An innovative, low-cost and easy-to-maintain pre-payment technology that insures sustainable access to water in remote areas.”

Data logger

The amount of transactions is logged with a simple electronic data logger. It records each transaction with a time stamp, a location and the name of the water point.

Data can be download from the logger to a mobile phone using a provided app. This data is stored on the phone and transmitted to a server when there is cellular reception.
The retailer buys tokens from the service provider. He sells it to the users. Funds for maintenance and repair are stored at a bank account.

Customers use the tokens to fill their containers with clean, drinkable water.

The management entity has the key to the box in the water tower where the tokens are collected. They regularly collect the tokens and download the data from the logger.

When the equipment needs maintenance the service provider organises it the money collected from the token sales.

The caretaker feels the responsibility to maintain the equipment in a good state in order to keep the revenue stream from the tokens.

Local mechanics are hired for maintenance and repair of the equipment.

The equipment stays in a good condition. Users have access to clean, drinkable water.
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