We Claim:

1. A smart water management system based on the Internet of Things, IoT technology, the system comprising a central cloud-based server and a plurality of water machines, each water machine comprising a controller unit communicatively coupled to the server, each water machine comprising one or more water dispensers, the system characterized in that:

the controller unit is configured to:

control a flow sensor and a solenoid for dispensing of water from the water machine, wherein the controller unit is configured to put the solenoid in open state and counts the number of pulses of the flow sensor which is calibrated for millilitre per sec when a user selects a start dispensing option on a user interface of the water machine after payment and when the selected amount of water is reached the solenoid is put to an off state; and

transmit operational and maintenance data of the water machine including the controller unit to the server, and

the server configured to:

track a geographic location of each of the plurality of water machines in real time using global positioning system, wherein the tracking a geographic location comprises tracking of at least one of a water

automated teller machines, a water on wheels machine, and an Ohiya Drinking Water Station;

control and operate each dispenser independent of other dispensers in the same water machine; and

update a firmware of one or more of the plurality of water machine remotely;

switch to a second communication protocol when a first communication protocol is unavailable;

wherein, the server comprises an authentication service, a device backend service, a data logger, an integration service, a user interface service, and a calibration services;

wherein, the calibration service provides access to at least one of an Android application, a mobile application, or a web application to calibrate flow sensors of water dispensing unit to ensure a reliable and steady rate of water flow;

wherein, a dispenser controller, DC controls the water flow of the Dispenser gives a Touch Screen interface to the User and which is Wi-Fi Enabled, Touch Screen with User Interface to guide the customer, connectors for Coin Sensor and RFID for payment, flow sensor and solenoid connector, FOTA, Firmware Over The Air and USB based

configuration, and a unique transaction number is generated for every payment; and

wherein the controller unit is configured to authenticate RFID cards with Database services and publish the status message to devices after successful authentication and payment.

2. The system as claimed in claim 1, wherein the authentication service authenticates the communication between message queue telemetry transport protocol, MQTT broker and a device with the use of device store consisting of information related to the device and response from authentication service allows or rejects the request for connection from the device through the MQTT broker.

3. The system as claimed in claim 1, wherein the device backend service while subscribing to the MQTT topics assigned to the water machines, and on receiving the data packet from the water machines, passes data packets and updates the dispenser status to ON or OFF, updates status of an automated teller machine to ON or OFF and stores the collected information in a time series database, and authenticates payment cards with the authentication service and publish the status message to the water machines after successful authentication.

4. The system as claimed in claim 1, wherein the data logger logs the data packets received from the water machines and stores the same in a log store required for maintenance.

5. The system as claimed in claim 1, wherein the integration service exposes and connects through application programming interfaces with the database to perform the functions.

6. The system as claimed in claim 1, wherein the user interface service provides access to a web dashboard to monitor one or more water automated teller machines, access logs of the machines for maintenance purposes and survey the revenue collection and total water dispensed information.

7. The system as claimed in claim 1, wherein the application programming interfaces gateway authenticates accessing clients by validating java script object notation web tokens and redirects the requests from the clients to requesting services and send the response from the requesting services to the clients.

8. The system as claimed in claim 1, wherein the dispenser controller controls the water flow of the dispenser.

9. The system as claimed in claim 1, wherein switching to a second communication protocol when a first communication protocol is unavailable comprises operating using Unstructured Supplementary Service Data, USSD protocol when a better connectivity between the water machine and the server is unavailable.

10. The system as claimed in claim 1, wherein the system is accessed by users that use conventional mobile phone by making digital payments through text messaging based on one time password method.