



# Turn-key IoT solutions for insurance

TechITEZ (pronounced Tech it easy), supplies a turn-key solution to B2B clients. We provide B2B partners with all the tools necessary to unlock a new market, or service an existing client base with value-adding technology for the end-user. Our target market is that of the insurance industry, who can draw large advantage from our service offering.



# Table of Contents

01	<b>Introduction</b>	01
02	<b>The Software Stack</b>	02
03	<b>The GEASY</b>	03
04	<b>Peak Demand Management</b>	04
05	<b>Dropula</b>	05
06	<b>Flooding Sensor</b>	06
07	<b>End-user App</b>	07

# Introduction

The home insurance industry is currently hampered with a large claims portion and risk profile being attributed to the failure of storage water heaters (or geysers, as we know them). Therefore, purely from a risk reduction point of view, it makes sense for insurers to install, at their own cost, mitigating technology. This removes the barrier to the market of the conventional consumer-based model for geyser controllers, where the homeowner has to incur large capital layouts for the technology.



The TechITEZ solution is designed such that it can be integrated into a company's existing business processes without disruption.

What we offer is a complete software stack, from installation and fleet management, to a white-labelled end-user application.

Additionally, we provide hardware, at near cost price, reducing capital layout costs for bulk clients. TechITEZ currently offers three products, with the aim of servicing three different market segments (high, middle, and lower-income brackets).

These three products are, in order of highest value:

- Geasy, a smart geyser controller
- Dropula, a smart water meter
- Flooding sensor, a water detection sensor

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**“The truth is, homes change over time and technology has to adapt, not try to do everything at once.”**

Founder & CEO of Nest Labs, Tony Fadell

# The Software Stack



What we offer is a complete software stack, from installation and fleet management to a white-labelled end-user application and API access directly to and from our database for advanced integration.

## 01 Installer's Application

Used to input information about the installation, device and user to the TechITEZ backend

## 02 End-user Application

Made available to end-users in order to manage, control, monitor and schedule their device(s). Alerts and notifications are sent via SMS and email. Additionally, weekly usage-report generation is done.

## 03 Operations Application

Where clients of TechITEZ can manage their installations, users and devices.

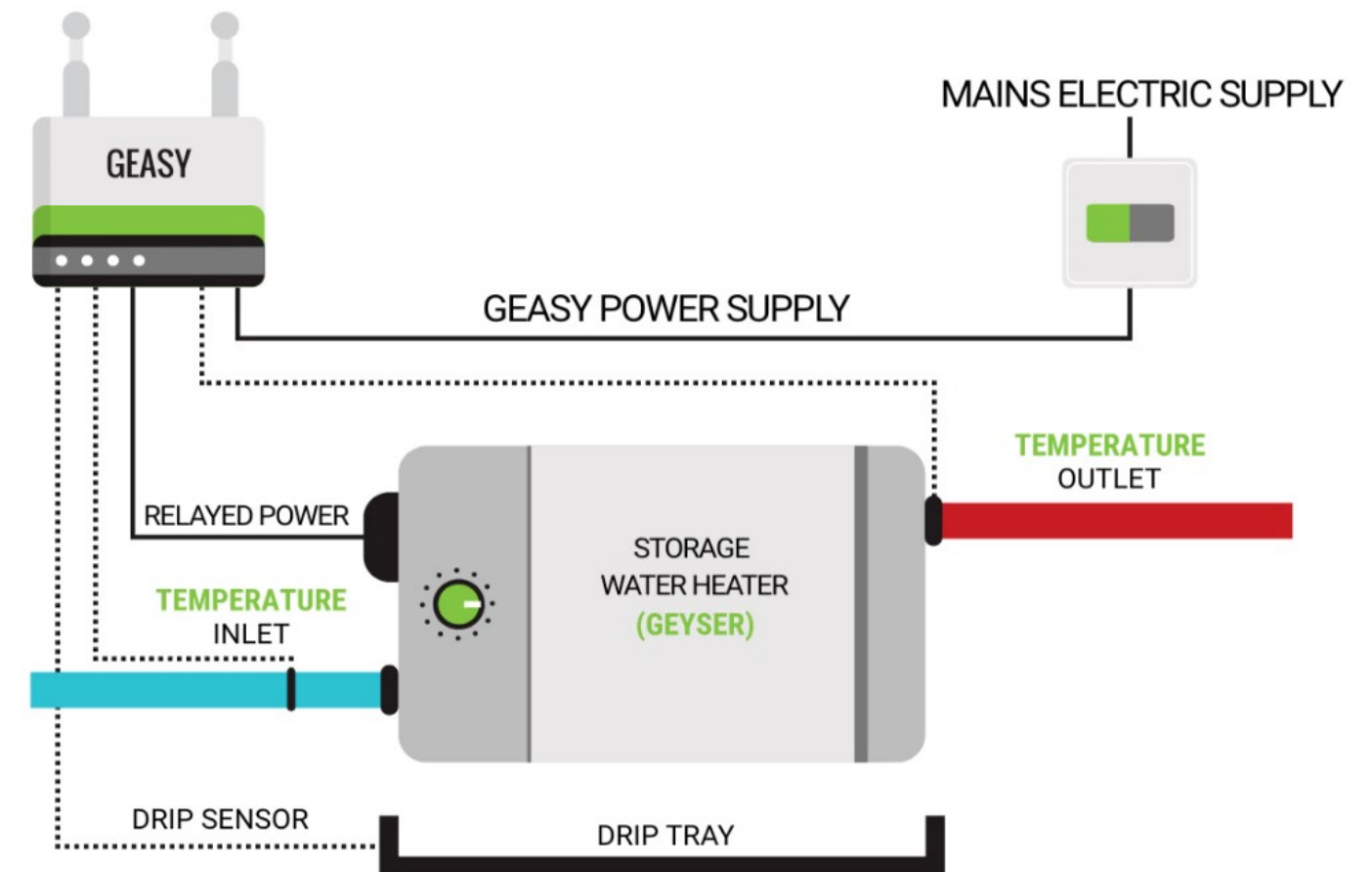
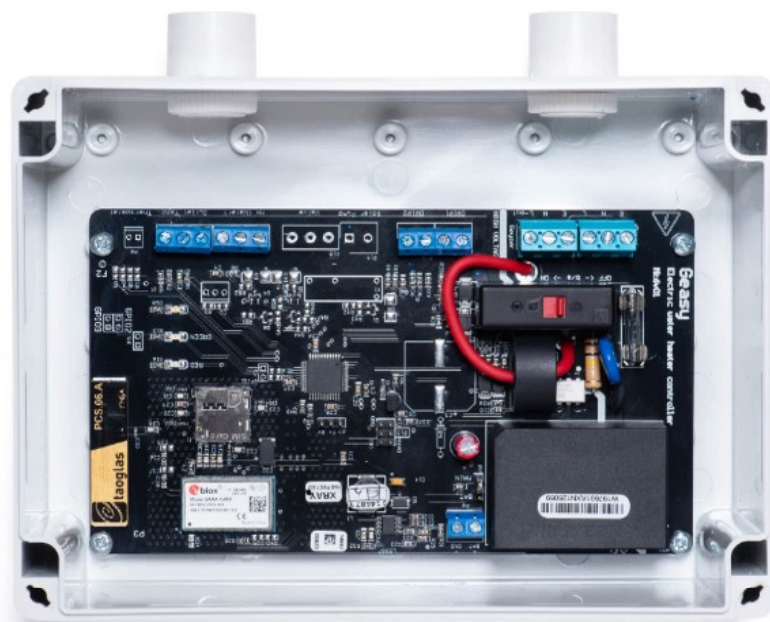
## 04 API interface

Which can be used to integrate the TechITEZ backend into a client's own platform or apps.

# The GEASY

*The Geasy, a smart geyser controller, is installed on the electrical supply to the geyser, between it and the isolation switch. This gives the Geasy control over the electricity usage of the geyser. The Geasy is connected to the internet with a GSM (cellphone-based) connection, allowing for high-resolution data and making monitoring and control functionality near real-time.*

The Geasy was developed at Stellenbosch University, with a focus on energy efficiency, over a period of several years. Geasy has been fine-tuned over multiple iterations, resulting in each subsequent model being more reliable and commercially viable (i.e. mass-producible) than the preceding ones. Geasy has been field-tested, in the consumer-based model, since 2015 and has stood the test of time. In addition to the energy efficiency provided, and of most importance to the insurance industry, is the leak detection capability of the Geasy. Leak detection allows for the mitigation and prevention of possible consequential losses associated with Geyser failure.



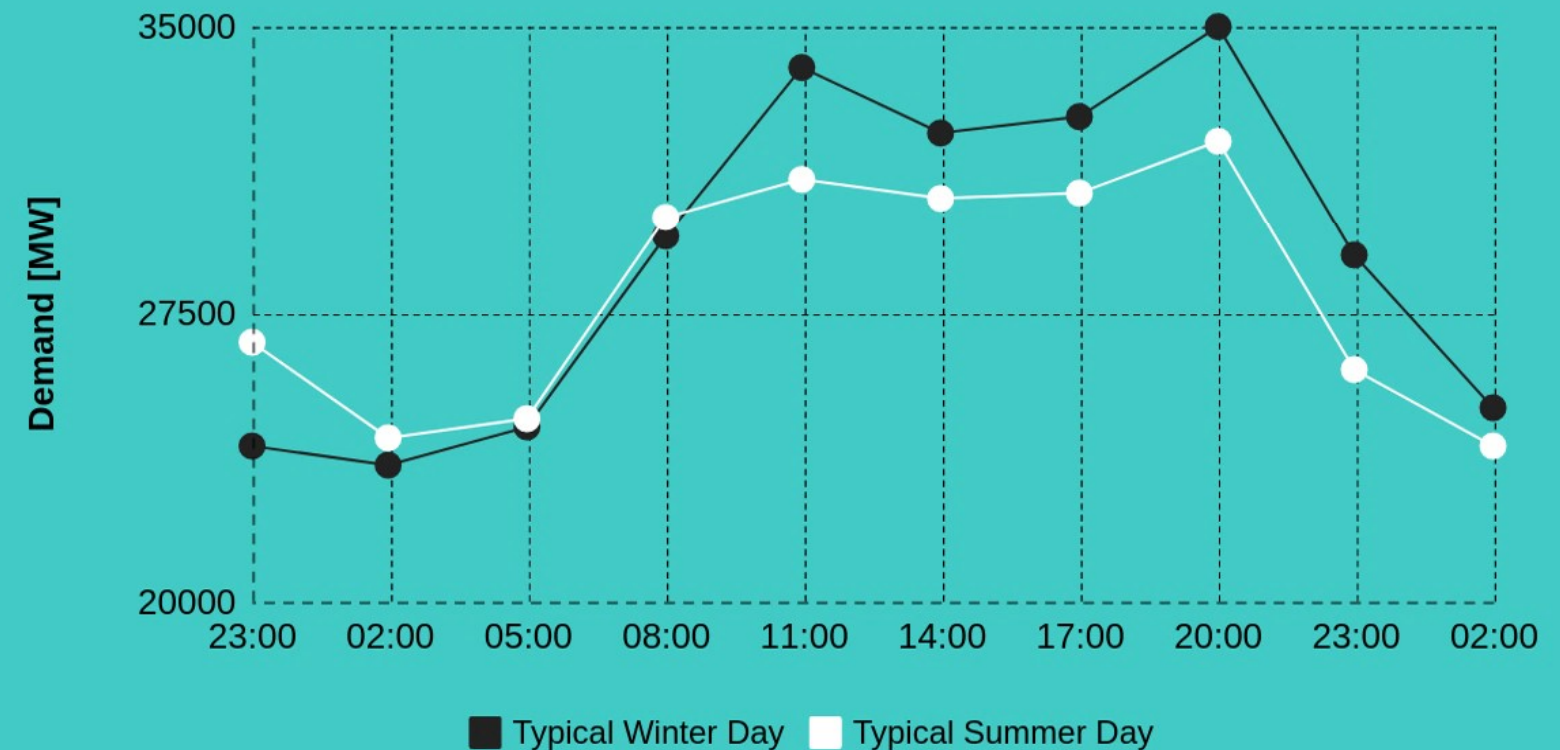
The end-user, a home insurance client, is able to benefit from the technology through the energy efficiency it provides. The possible savings for a middle-class home are about equivalent to that of the home insurance premium itself, making it an attractive proposition for any prospective client. This increased efficiency, through correct scheduling and temperature control, can save around 30% of a household's normal energy usage per month. This equates directly to a 30% saving on associated climate impact. Therefore, a significant portion of CO2 emissions can be reduced in developing countries, such as South Africa, where fossil fuel use is still the norm.

# Peak Demand Management

“Domestic geysers are responsible for that sharp evening peak.”  
-ESKOM

The residential sector uses about 17% of the total electricity generated in South Africa.

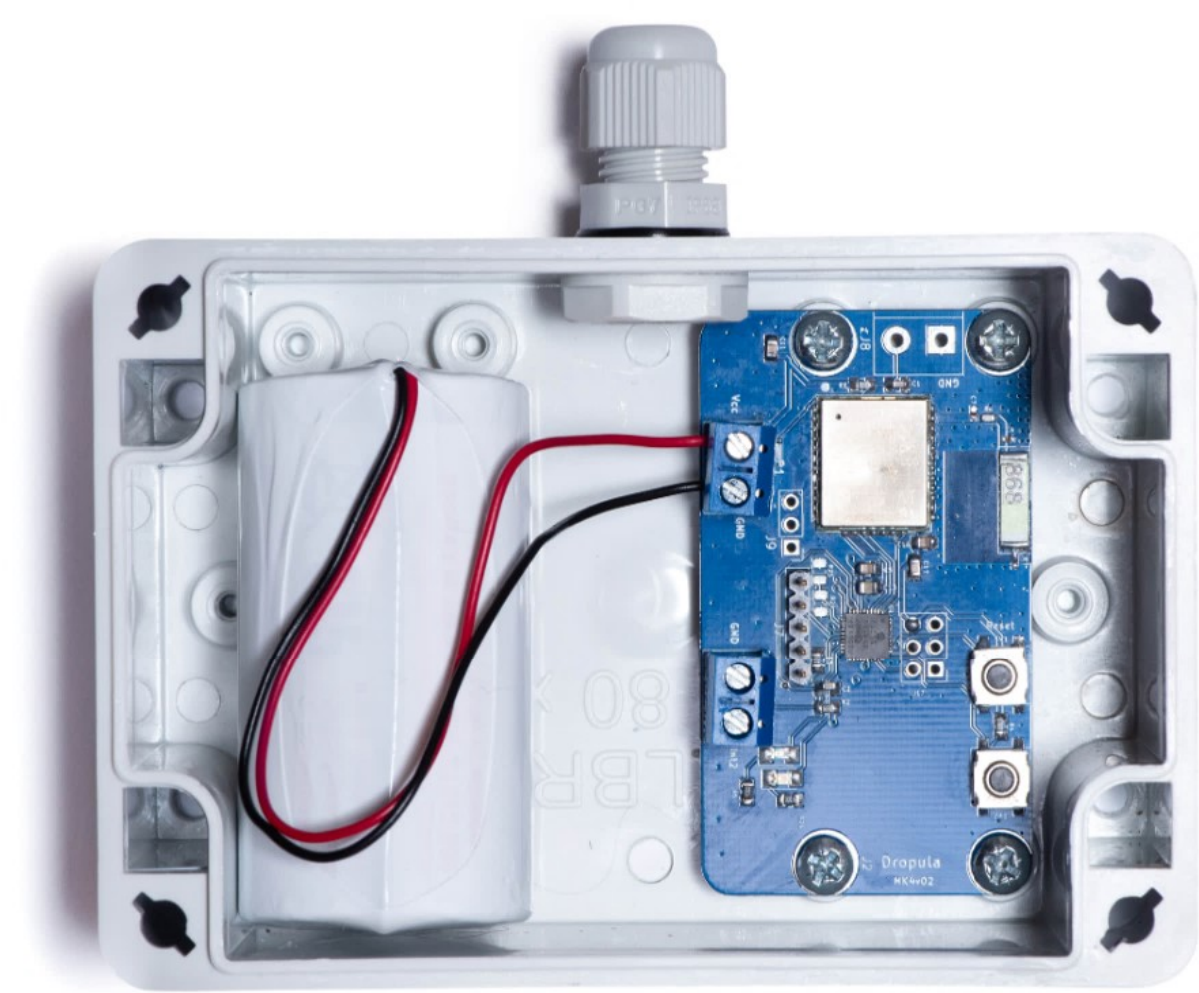
During periods of peak demand in South Africa – 7-10am and 5-9pm – residential demand is up to 35% of the total demand required



The ±12 million geysers in SA have a combined load about equal to that of Durban. Conventional geysers by themselves are not smart and will start heating as soon as there is a small drop in temperature.

This, occurring at inopportune times — such as during peak usage times — places unnecessary strain on the national power grid. However, geysers act as large batteries storing energy in the form of hot water, ready for use when the user requires it. Using the Geasy, geysers can be controlled to provide hot water for their owners when they need it, and thus reduce their impact on peak loads.

# Dropula



Additionally, TechITEZ offers the Dropula smart water meter. The Dropula can be installed on any pulse-capable water meter, meaning it is well-suited for low-cost and retrofit purposes, and very versatile in terms of water meter compatibility. The Dropula is compatible with various types of pulse water meters, used for residential or bulk metering, as well as Kamstrup's wireless water meters.

These water meters traditionally require manual reading of the register value for monitoring purposes, but TechITEZ's services make it possible to take these meters online by interfacing the meter with our Wired-Dropula solution.

The Dropula has been used extensively since 2017, with its principal claim to fame of the #SmartWaterMeterChallenge, was implemented in the period preceding the possible Day Zero.

The campaign received wide coverage on CapeTalk radio and challenged corporates to donate funds to sponsor the installation of the technology at underprivileged schools in the Western Cape. These schools were found to be large, inefficient, users of water. Some 350 schools received Dropula units, resulting in estimated savings, through targeted interventions, of approximately 640 million litres and R46 million over a two-year period.

# Flooding Sensor

A compact yet powerful device for flooding detection. The device is set-and-forget, with a battery life of 10 years, providing long term peace of mind.

## ✔ Event notification

This device sends an alarm via SMS/email within seconds of a leak event occurring. Daily communication with the backend ensures peace of mind.

## ✔ Robust design

Innovative design  
IP67 waterproof (and floats!)  
Loud alarm buzzer  
Gold plated contacts  
Size: 60x60x60mm

## ✔ Disturbance detection

Movement or flip warning  
(accelerometer inside)





Cross-platform

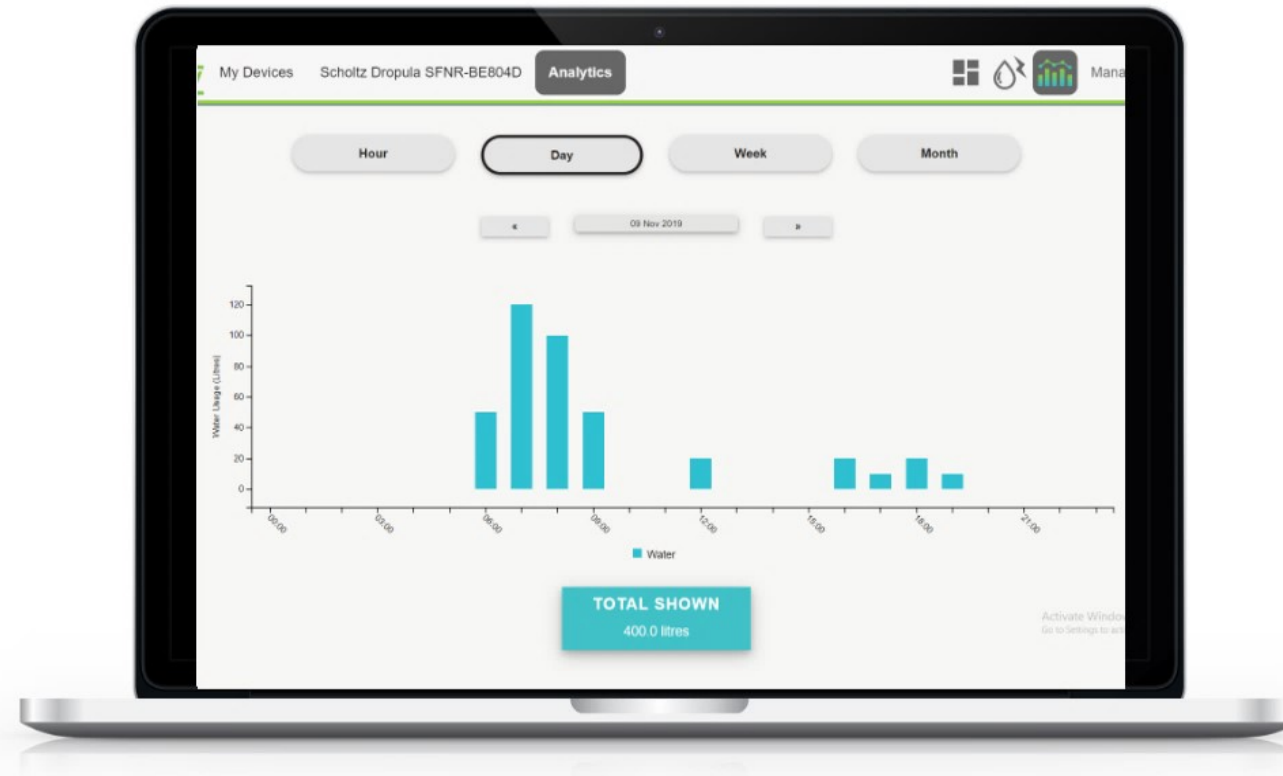
# End-User Web-application

*TechITEZ's end-user platform can be used on any personal computer or smartphone.*

*B2B clients have the option of using the platform as is or white-labelling it with their own branding.*

*We also offer API access which allows for integration with the existing systems of our clients.*

*Additionally, weekly reports can be generated in order to present a summary of data to users, who do not use the app regularly.*



Users can browse through their historic usage as well as see their present usage in near-real-time. This provides valuable insight as to what activities use the most water in their home.

The presentation of data on the web-app makes interpretation intuitive, empowering users to make behavioural changes and informed decisions about appliances and upgrades to their home.

The web-app can be accessed on mobile phones or tablets, with no loss of functionality. Scheduling and control of one's geyser can also be done in real-time from any device.

Event notifications, such as leak events detected by Geasy, can be received by multiple parties via SMS and/or email, allowing for action to be taken timeously.

All TechITEZ's devices can be accessed via the web-app and seen in one place.





**Please feel free to contact us for more information:  
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**Website**