

## How it all began ... monitoring your needs

In the end it was the lack of dynamism, within the structure of a very large organisation that compelled me to leave KPMG. In my mind I've always preferred the corner shop to the multinational and so my wife and I created Van Walt Ltd more than 30 years ago.

Even though three decades later the company probably doesn't entirely classify as a corner shop; (growth is inevitable) we managed to contain the company so we could live to the essence of our core values and to react quickly to changing times and developments in the requirements

of the customer.

It is this dynamism which has, inevitably perhaps, led to vanwaltDataHub, vanwaltCONNECT and now, in September 2017, to the launch of our "Logger for Life" concept. This leaflet is to explain these three.



Vincent van Walt November 2017





Take loggers. They are ten-a-penny and not a month goes by without seeing another coming to the increasingly congested market. They look more or less the same, within a category they do the same thing and even the specifications are matched by the manufacturers. So, choice is made according to other criteria. The reliability of supplier, the "typical" accuracy which is often so different from the specifications, the weight, the track record, durability and so on.

Over the years we've sold thousands of loggers but we've seen only a few hundred come back (from a variety of brands), for a "performance check". Normally we only see these because the data has been queried or because there was a discrepancy between the logger and dip meter value. And then the question always arises as to since when the item had started to drift or miss-record.

It is my job to review these things. When we talk about water quality instruments we talk about verification and calibration but this is rarely discussed in the context of loggers. Is this because this is a non-issue? Not in my world. I believe it might be because of an implied sense of security and therefore to my review as to how we would like things to progress.

All things considered, loggers for the determination of Level and Electrical Conductivity, (as opposed to other parameters such as pH, Redox, DO, Turbidity...) are pretty stable and reliable but they should still be periodically checked. I'd set the period at 6 or 12 months for those two parameters. And so we come to our new concept of a "Logger for Life".

My vision of a logger for life is one whereby the customer never has to purchase the equipment and it works on the basis an "exchange" at each verification frequency. For example, 12 months for a water level logger, 6 months for a combined Level and EC logger and 6 weeks for a multiparameter installation. Replacement units are sent to the customer who exchanges with his or her current units and returns the originals to us. We verify and if necessary recalibrate and that unit then becomes the replacement for another occasion. Essentially this mirrors our rental service but extended for longer terms which will usually be the length of a project, anything from 6 months to five years or more.

Although initially we will phase in the more popular items within our assortment, such as water level loggers, the *vanwalt*DataHub with and without the *vanwalt*CONNECT telemetry, PID's, a selection of water sampling pumps, it is our intention to expand our collection and to be flexible to your requirements.

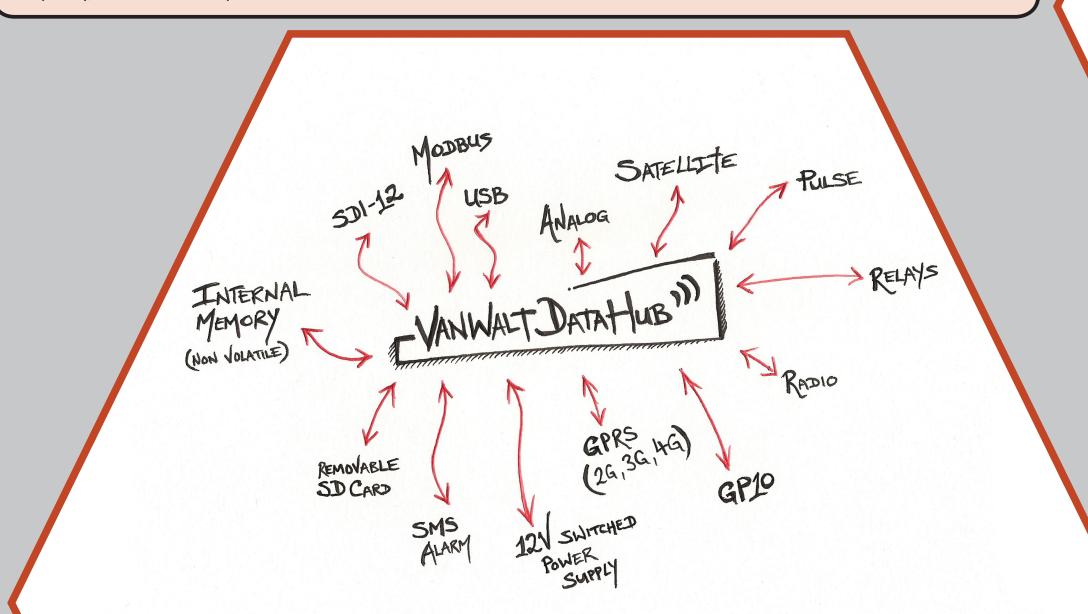
The concept is particularly useful for projects with a medium to short-term duration but in principle it can apply for much longer periods as well. The target markets are primarily for the environmental consultancies, shorter term research projects and also for PhD or post doctoral researchers which often have an equipment requirement for the practical side of their dissertation; usually between 12 and 18 months.

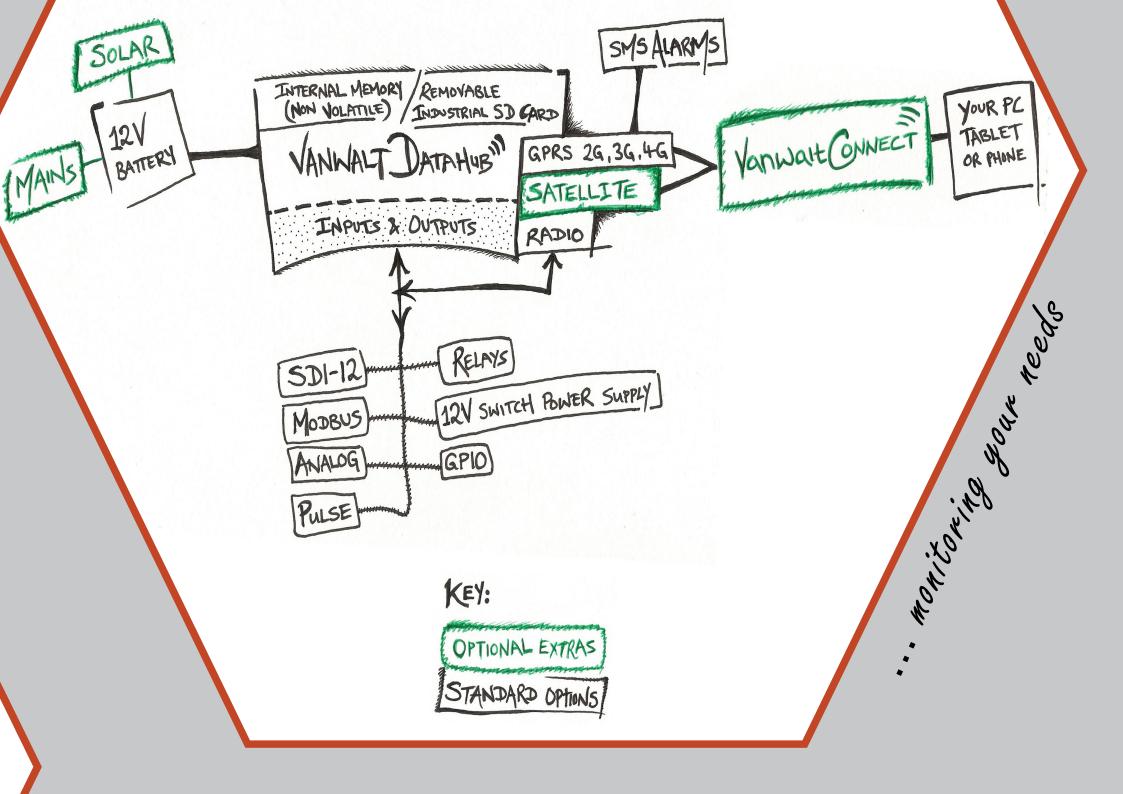


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### vanwaltDataHub<sup>11</sup>

vanwaltDataHub, designed and developed in house and manufactured by us in the United Kingdom, is a self powered, flexible system of electronics, conveniently packaged in an IP rated, heavy duty aluminium enclosure which performs as a hub to collect data from environmental and other sensors. It organises the data for distribution or sharing through on-board memory, radio frequency, GPRS or satellite portals.





### vanwaltCONNECT

**vanwaltCONNECT** is the remote interface for the *vanwalt*DataHub. It is a versatile, flexible, sophisticated and accurate web based system which allows data collected by the DataHub to be accessed from your desktop and shared between users to whom permission is given. The system has been developed in house, although our server is housed, backed up and maintained by world leading Rackspace.

vanwaltDataHub uploads the data by GPRS or satellite modems at a specified frequency to the dedicated vanwaltCONNECT server. The users who have the necessary permissions are allowed to view and download the data and set alarms. Sensor sampling rates, upload times and control of the vanwaltDatahub can be done remotely by an administrator.

#### **Rail Infrastructure Operator UK**

**The Requirement:** Part of the infrastructure is below the water level and could be subject to flooding. Dewatering pumps on the adjacent properties exacerbates the problem.

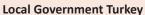
**Solution:** A number of *vanwalt*CONNECT systems monitor the water levels. Alarms have been set so all parties receive an early warning that flooding could occur.

#### International Relief Organisation Somalia

The Requirement: When there is heavy rainfall in Ethiopia, a river swells and endangers the inhabitants of a town. An early warning gives inhabitants the opportunity of reacting in advance of the flood.

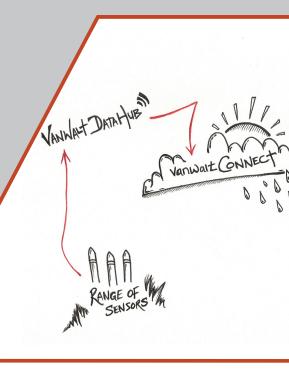
Solution: GPRS signal is not available. Installations are put in place close to the river bed. The data is downloaded manually through a Bluetooth connection to a tablet. The data is transmitted by FTP to our server so that it can be viewed by the involved parties.

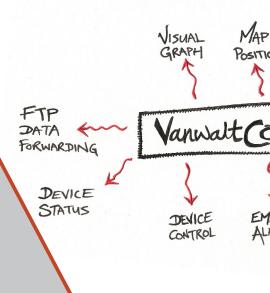




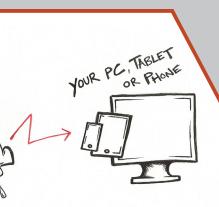
**The Requirement:** Water quality and turbidity need to be monitored for EC and turbidity.

**Solution:** Installation of EC and Turbidity sensors monitoring these parameters every 15 minutes to ensure that the inhabitants receive good quality water by triggering alarms when levels are in breach of acceptable levels.







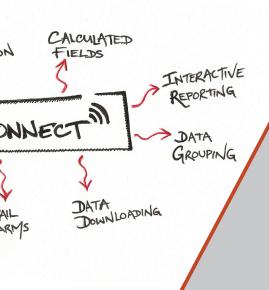


#### **Ski Field Operation New Zealand**

**The Requirement:** Flow rate of streams determine water abstraction permissions to the ski field operator who requires water for snow making. The regulator requires daily data.

**Solution:** Flumes are installed to derive water flow data. Using the alarms functionality a water pump is either switched on or off. Data is automatically forwarded to the regulator by FTP. A similar system is also used to switch off the pumps when the turbidity is too high and could damage the pumps.

### ... monitoring your needs



#### **Nature Conservancy Organisation UK**

**The Requirement:** Research to understand the effects of farming and the impacts of surrounding water from river and sea to the reed marshes.

**Solution:** Installation of several stations to monitor the water level so as to be able to build a more definitive picture regarding the wellbeing of the marsh.



Solution: Installation to record data every 5 seconds with an accuracy better than 5mm. Uploads every 30 minutes to our server and daily transfer of data by FTP to the regulator.

opened. The regulator wishes to establish the effect.

# vanwaltDataHub $^{\circ}$ - OEM Version

