# Application Note:

# Event Engine and Water Level
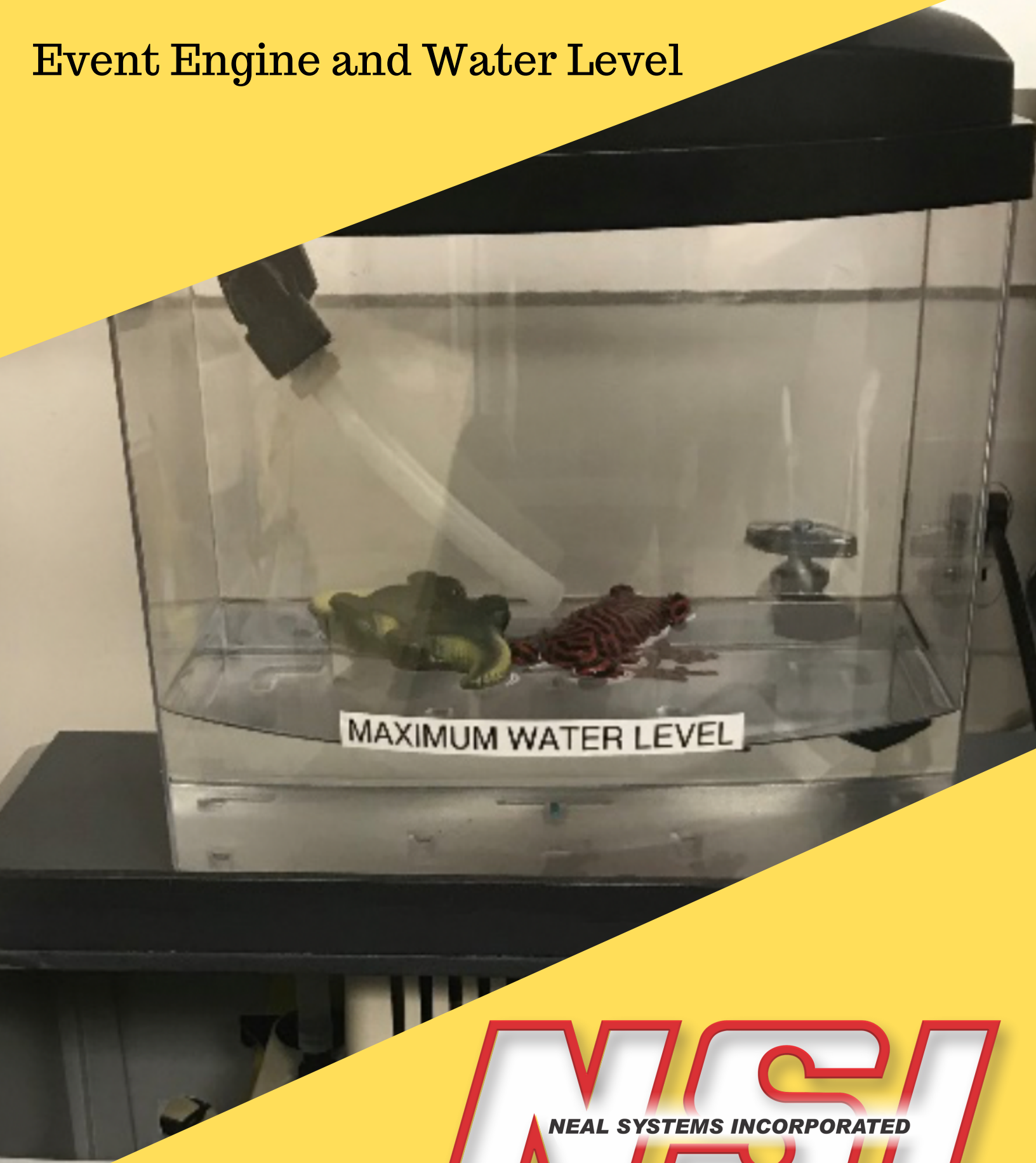
MAXIMUM WATER LEVEL

NSI

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The Red Lion RAM Cellular Modems have a powerful "Event Engine" built-in to the unit along with a large set of Modbus TCP registers to monitor and/or send out information.

In the example explained in this application note, we demonstrate a simple, but powerful feature of the "Event Engine":

How to control the level of water in a fish tank?

The same principle can be used for a municipal tank level, flow, pressure, temperature, or to a stirrer.

<u>Why would you event think of using a Cellular Data Modem?</u>

- Telephone lease line finally dies. Now, an operator has to drive out to the location to check. Overtime, waste of resources.

- Cannot use a License Free radio because of the topology of the site. Lots of trees nearby. Residents in the area object to a radio tower.

- No need for a PLC or indicator to display and control the level.

- Built-in SMS text messaging to 99 numbers to send an alert and to let you know when everything is back to normal.

- Instant reading of the tank level on your cell phone.

- Works when the power goes out – your cell modem is connected to a small UPS.  The Cellular network towers run on backup generators – your cell phone has a battery that will probable last for the duration of the outage.

- Intrusion detection.

- Nobody knows how to setup this account with Verizon or AT&T.  Neal Systems has been helping Municipalities with setting up accounts for 15 years.  We have the knowledge, contacts and experience to make the whole process seem like "magic".

- What about security? Can this device be hacked? The Red Lion Cellular Modems have some of the most powerful, state of the art, up to date firewall protections available anywhere.

- It is too expensive.  A typical installation with an enclosure installed and operational is less than $ 2,500

- Too expensive to run – not true.  Typical monthly charge is $20.00 per modem per site under Verizon Wireless or AT&T State Pricing Plans.

- Costs less than the typical $ 100 - $ 120 per month lease line rental that keeps failing and takes forever to be repaired.



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