In-Situ

50 countries across
5 continents

4-6x better battery life using LTE-M compared to 2G

3x faster device deployment leveraging emnify's API

How In-Situ makes water monitoring smart and easy with emnify

Remote water monitoring can provide huge savings on time and costs spent on manual data collection in the field. That said, conventional systems have been dauntingly complex to set up and manage for many.

In-Situ set out to change the game with VuLink – a custom-made, robust cellular telemetry solution that works out of the box at any customer site.

From hardware installation and maintenance to data collection, analysis, and interpretation, In-Situ's goal is to simplify it all for customers.

To achieve this, deep vertical integration coupled with IoT-focused cellular technologies, namely LTE-M and NB-IoT, are two core ingredients of the VuLink solution. And there are no better technology partners than emnify.

About:
- Headquartered in Fort Collins, Colorado, USA
- Industry: Environmental monitoring

Challenge:
Making remote water monitoring simple and cost-efficient

Solution:
Cellular telemetry devices (VuLink) and a versatile data services platform for realtime data access (HydroVu)

Why emnify:
Connect:
- Global IoT SIM: Successful product rollout in international markets
- LTE-M: Reduced device cost and power consumption

Automate:
- REST API: Excellent customer experience with automated device activation and deactivation

Operate:
- emnify Portal: Connectivity data for company-wide operations

> "emnify is way ahead of the game in terms of both technical integration and LTE-M support. Our partnership has been integral to the global success of VuLink."

Matt Trumbo
Senior Product Manager, In-Situ

www.emnify.com
sales@emnify.com
+49 30 5557 333 33

emnify

Rethinking water monitoring with power-saving cellular technologies

"The state of our industry is that 90% of the devices are not connected over the Internet in any fashion," explained Matt Trumbo, Senior Product Manager at In-Situ.

The pure cost of getting data for decisionmaking is staggering, as professionals need to drive or even fly out to the site regularly.

"Another big issue is around battery life, as people often have to install gigantic solar panels or big primary battery packs for the monitoring devices," he added.
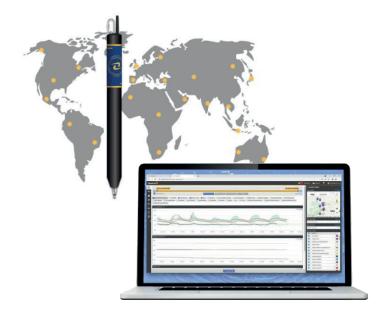
These challenges inspired the team to develop VuLink – In-Situ's first telemetry product that uses cellular transmission.

Leveraging power-saving technologies like LTE-M and NB-IoT, VuLink devices can run on a compact D cell battery for years without any battery change needed.

"Our value proposition is that what if our customers only have to go on-site every few months or even years, instead of days or weeks," he explained.

Back in 2014 when In-Situ started to build and sell cellular products, the company struggled with finding a connectivity solution that works internationally, given over half of its business is outside the USA.

"At the time, I was traveling the world, and everywhere I went, I always took a bag of SIM cards and tried to test them. But nothing had worked in all countries that we targeted until we came across emnify," he recalled.

> "As we moved to support LTE-M and NB-IoT with VuLink, emnify was very committed and had clear plans that aligned with our launch timeline. Frankly, other providers we had talked to did not. Thanks to emnify's robust LTE-M service, our product rollout has been wildly successful."

Matt Trumbo
Senior Product Manager, In-Situ

emnify

Elevating customer experience through product ease-of-use

According to Trumbo, another reason why customers love VuLink is how simple it is to use. The emnify API plays a big part in this.

To provision a device, all a customer needs to do is scan a QR code, press the power button, and it is ready to go. Leveraging emnify's API, the SIM card is automatically activated as the device is provisioned on the HydroVu platform.

"Recently, one of our governmental partners here in the US just marveled at how a totally untrained person on their side could onboard the device within minutes simply by scanning the QR code."

"Our customers don't want to deal with SIM or connectivity setup of any sort. And our partnership with emnify made this experience possible," he said.

Connectivity data for automated billing

Besides transmissions of water data, a pillar function of VuLink is that customers can set an alarm threshold on the VuSitu app to automatically receive a text message when a particular concern is triggered.

The company provides customers with multiple service tiers depending on the data and SMS allotment per month per device. Information on connectivity usage is thus critical for billing.

Using emnify's API and Data Streamer, In-Situ can pull usage information of each device and pass along this data to its billing partner's system to automatically generate invoices based on SIM and connectivity events.

"This helps us save hundreds of person-hours compared to our previous solution for sales and finance. But frankly, we never would have scaled our business as we are without these automations." noted Trumbo.

VuLink Devices

2G | LTE-M | NB-IoT

emnify IoT
Communication Cloud

Connect | Integrate | Automate Operate | Secure

HydroVu Data Services Platform

VuSitu App

"

There are other companies who offer similar integration functionalities, but emnify's technology is the best one we've worked with."

Matt Trumbo
Senior Product Manager, In-Situ

emnify

One connectivity portal for company-wide operations

Having cellular connectivity intertwined with the VuLink product, a connectivity management platform is pertinent to multiple business functions of the company.

With previous network partners, the lack of user management capability on such a platform means that Trumbo had to take care of tasks like paying connectivity bills. "It felt like I had to wear an extra hat," he said.

"Since we started using emnify, all different teams in our company can easily log in to the emnify Portal and get the information they need," said Trumbo.
Typically:

- The support team can examine network events and connection quality and proactively trouble shoot the connectivity.
- The software team can execute relevant integrations to automate processes and streamline operations.
- The R&D team can test and evaluate new prototypes.
- The finance team can quickly get connectivity invoices for payment.

"

Our team often says we wish we could have more technology partners like emnify. Their solution makes it easy for us in a lot of dimensions."

Matt Trumbo
Senior Product Manager, In-Situ