

CELLULAR SOLUTIONS FOR FIXED AND MOBILE VACCINE FREEZERS

Remotely Monitoring Medical Refrigerators

Public and private medical organizations across the nation have been reaching out to USAT to help further their agencies efforts to fight the coronavirus. After helping network dozens of mobile and pop-up vaccination facilities, a new challenge arose. Many vaccines were going bad before medical technicians could use them. Facilities needed a solution to remotely monitor fixed and portable refrigeration units. *Again, USAT was ready to help.*



Maintaining Proper Temperature Levels

Proper refrigeration posed one of the largest challenges county and state health agencies have faced in deploying vaccinations.

Vials containing the COVID-19 vaccine need to be stored at very specific temperatures based on the original manufacturer.

For example, the Moderna Vaccine needs freezer temps between -25°C and -15°C (-13°F and 5°F). Once ready for use, they can be moved to refrigerators and stored between 2°C and 8°C (36°F and 46°F) for up to 30 days, and then must be discarded.

Once removed from refrigeration, technicians have twelve hours to use them or dispose of them (following Moderna guidelines).

Mitigating Multiple Issues

As each vaccine manufacturer has different requirements and shelf lives, health departments need to track which refrigeration units contain which vaccine to ensure they maintain the specific temperature levels manufacturers require.

Some medical organizations have lost doses resulting from the improper mixing of manufacturers within the same refrigeration unit. Others lost doses to unreported temporary or intermittent power outages. And still others lost supplies due to instances of simple human error (like forgetting to close the fridge).

Our client Optimus Health Care wanted to prevent these issues from occurring during their own vaccine deployment efforts.



USAT can provide your healthcare organization the end-to-end communications solutions it needs to support the success of your fixed and pop-up vaccination facilities.

Solutions Deployed

After researching the challenges associated with proper vaccine storage, OHC and USAT worked out a solution to prevent and reduce the loss of vital vaccines.

OHC suggested combining remote sensors and cellular routers to create a single all-in-one solution for their remote refrigeration monitoring needs.

For smaller more mobile units, we helped them locate and utilize temperature sensors and Cradlepoint IBR200 routers.

For bigger units, containing a higher volume of supplies, we suggested using multiple sensors for temperature, power, and door-seal monitoring tied to Cradlepoint IBR600C routers.



Results Delivered

With all sensors and routers in place the IT team at OHC can remotely monitor every refrigeration unit under their control in both permanent and temporary locations from a single desktop in their offices or smart device on the road.

With NetCloud IoT services, they can register, configure, and update their routers over-the-air. And with sensor management software they can manage their sensors in the same way.

Today, their team receives instant notifications whenever a unit door is opened and closed, when a door stays open for too long, if a loss in power occurs, and if temperatures fluctuate outside of predefined limits. OHC's operations are a finely tuned machine.

Why Choose USAT?

For the last 25 years USAT has provided expert IoT connectivity solutions to healthcare organizations. Our team supports every aspect of your mission-critical communications projects. We engineer and provide solutions that utilize only top-tier cellular equipment from the most trusted manufacturers worldwide.

Our DevProv+ services team configures, provisions, kits and ships your devices hot and ready for immediate use. And our installation teams ensure your devices are functioning securely, reliably, and at peak performance.

Reach out to USAT today to rapidly deploy pop-up networks that meet your medical organizations exacting needs.



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