

April 14, 2025

Commissioner Tony Grindberg, Chair
Cass County Commission
Via email

Chairman Grindberg,

I am writing to request time on the agenda at the next regular meeting of the Cass County Commission, for the purpose of providing an overview of a new technology that is currently available to the Cass County Jail, and consideration of a purchase agreement.

The technology in question is a new radar device that constantly monitors vital signs of an inmate for any abnormalities with heart rate or breathing, and also monitors motion. The system is designed to work only within a single cell, is monitored in real-time and creates both an audible and visual alert at the staff desktop computer whenever abnormal readings are identified. It can also be monitored remotely, such as if I wanted to have the system live from my own office. The system also collects data by fixed cell number, rather than by inmate name. So while it does compile a historical record of all readings taken, there are no HIPAA or other privacy concerns.

I believe that this technology could be of great benefit to providing for early detection of issues related to inmate health, specifically as it pertains to those who have just arrived in jail and have not yet been assessed by medical, those who are intoxicated, and those who are at risk for suicide or drug overdose. Even better, this system would fully fit within the criteria for use of funds in our Commissary Account. It would be my intention to seek to install a radar unit in each of the 18 single cells in our booking area.

I have already observed this system in use at the McKenzie County Jail in ND, and the technical requirements have been reviewed and approved by the Cass County IT Director. Enclosed with this request is a quote for installation of 18 units, along with yearly monitoring. Annual monitoring fees would be an ongoing expense, and include access to historical records should any auditing or evidentiary requests arise.

Suggested Motion – Approve the Cass County Sheriff to purchase and install sensors and monitoring services from Reassurance Solutions, in the amount of \$112,500, using funds in the Jail Commissary Account.

Capt. Andrew Frobig
Jail Administrator



Cass County ND-18

Andy Frobig
frobiga@casscountynd.gov
+17012712958

Reference: 20250306-082729080
Quote created: March 6, 2025
Quote expires: June 4, 2025

Reassurance Solutions
34 US Hwy 68 East
Unit A PO Box 766
Benton, KY 42025
United States

Prepared by: Reassurance Solutions
info@reassurancesolutions.com

Total \$112,500.00

PRODUCTS & SERVICES	QUANTITY	PRICE	TOTAL
XK Medical Sensor - XK300	18	\$4,000.00	\$72,000.00
XK Medical Gateway - 4-port	9	\$500.00	\$4,500.00
Installation Services	18	\$1,100.00	\$19,800.00
Annual Maintenance	18	\$900.00	\$16,200.00
SUMMARY			
One-time subtotal			\$112,500.00

Total	\$112,500.00
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Comments

Purchase terms

HELPING PREVENT SUICIDES, OVERDOSES, & OTHER HEALTH ISSUES

Combined Public Communications
In Partnership With

REASSURANCE
SOLUTIONS

VITAL SIGN MONITORING

The XK300 is a non-wearable vital sign monitoring system measuring respiration rate, heart rate, motion and presence. By using radar technology to take continuous vitals without any staff intervention, the XK300 provides reliable and accurate healthcare monitoring.

RADAR TECHNOLOGY

Our body continuously generates health data via vibration frequencies as we move, breathe, and as our heart beats. The XK300 captures this health data automatically using radar technology.

HIPAA COMPLIANT

All vital sign data is captured and identified by the cell/pod number. No personal information is documented.

FDA CLEARED

The XK300 is the only FDA cleared medical device commercially available to use radar monitoring to track resting heart and respiratory rates, motion and presence.

ACCURATE VITALS

99.9%

Reassurance Solutions' radar technology is designed to detect presence at 99.9% accuracy within 1-3 millisecond.

The XK300 gives accurate resting heart and respiratory rates (± 3.2 bpm as compared to ECG and ± 1.18 breaths per minute as compared to ETCO₂).



HEART RATE

Heart Rate (± 3.2 BPM compared to ECG) is captured while in their cell at rest.



MOVEMENT

Movement is measured while in their cell.



RESPIRATORY RATE

Respiratory Rate (± 1.18 breath/min compared to ETCO₂) is captured while in their cell at rest.



PRESENCE

Our radar can sense through blankets, clothing, mattresses, and drywall but not metal or concrete.

WE ARE THE MED TECH STANDARD FOR PATIENT VITAL SIGN MONITORING

Combined Public Communications
In Partnership With

REASSURANCE
SOLUTIONS

Reassurance Solutions' XK300 sensors can measure 6000+ resting HR (Heart Rate) & RR (Respiratory Rate) readings a day, as opposed to traditional processes, where vital signs are measured manually on a much less frequent basis.

OUR SOLUTIONS

- 📶 **Privacy Protected**
 - No cameras
 - No microphones
 - Only radar
- 📶 **Autonomous Monitoring**
 - No battery to charge or change
 - No On/Off button
 - Automatic monitoring upon installation
- 📶 **Continuous Data Collection**
 - Real-time, continuous data feed
 - XK300 sensor never stops
 - Detects human vibration patterns continuously

WHY CHOOSE REASSURANCE SOLUTIONS?

- 📶 **Contact-Free:** No wearables.
- 📶 **Continuous Monitoring:** Always measuring presence, resting HR & RR, and motion.
- 📶 **Reduce Staff Burden:** Timely and accurate vital alerts so your staff can focus where the need is greatest.

HOW IT WORKS

Once the XK300 is installed on the ceiling or mounted to a wall, monitoring begins automatically, detecting human vibration patterns continuously.



Watch the
explainer video
to learn more!

TIME

The Best Inventions of 2022

SAVE MORE LIVES

The software dashboard is color-coded and provides both visual and audible alarms so staff can react immediately.

**GET IN
TOUCH**



www.reassurancesolutions.com



info@reassurancesolutions.com



ABOUT US.

Our systems enable staff to non-intrusively monitor inmates' vital signs, facilitating timely intervention during health crises.

Developed from over twelve years of research in a university lab, our technology represents a leap in autonomous, contact-free monitoring.

Our aim is to equip facilities nationwide with tools for swift action and life-saving responses, leveraging advanced monitoring to improve inmate health and safety.

CONTACT US.

LEARN MORE OR
SCHEDULE A DEMO



727.336.9430



dave@reassurancesolutions.com



<https://reassurancesolutions.com>



VITAL DATA.

ACCURATE MONITORING.

LIFE-SAVING TECHNOLOGY.



FDA
CLEARED

NO
WEARABLES

POWERED BY
RADAR
TECHNOLOGY

CONTINUOUS & AUTONOMOUS MONITORING.



MOVEMENT



PRESENCE



RESTING
HEART
RATE



RESPIRATORY
RATE

- The XK300 sensor measures micro-vibrations from the body to track heart rate, respiratory rate, motion and presence – no patient compliance or clinical staff action required.
- Utilizing radar technology eliminates the need for wearables or physical contact – providing a convenient, comfortable and compliance-free monitoring experience.



CONTACT FREE

Wall- and ceiling-mounted sensors require **no patient contact** or compliance.



FDA CLEARED

The first and only medical device cleared by the FDA to do so.

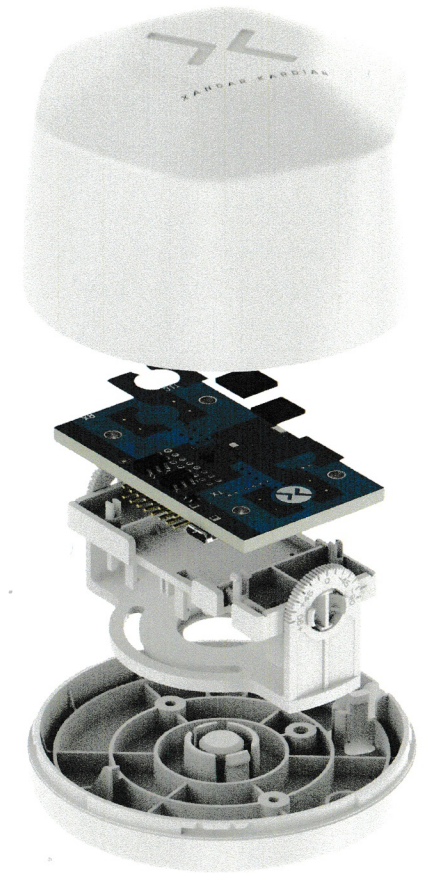


100% PRIVATE

No cameras. No microphones.
No images or sounds are collected or recorded.

XK300 MEDICAL SENSOR

RADAR TECHNOLOGY



CONTACT US TO
RECEIVE A QUOTE
OR LEARN MORE