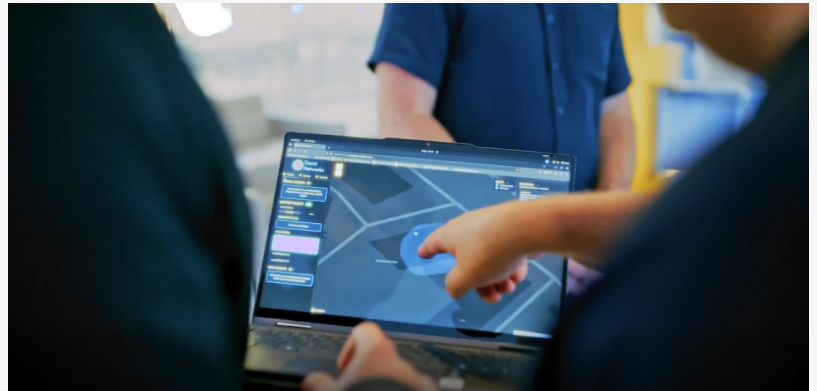


Tiami Networks and Turkcell Demonstrate Camera-Free 5G Sensing in Real-World ISAC Field Trials

Tiami Networks and Turkcell achieved 90% crowd-density estimation accuracy and individual location estimates within three meters using 5G ISAC.

SACRAMENTO, CA, UNITED STATES, October 21, 2026 /EINPresswire.com/ -- Tiami Networks and Turkcell (NYSE: TKC, BIST: TCELL) today announced the successful completion of real-world field trials demonstrating Integrated Sensing and Communication (ISAC) capabilities using existing 5G infrastructure.



Tiami Networks' PolyEdge™ interface during joint 5G ISAC field testing with Turkcell in Istanbul.

Conducted at the Istanbul Expo Center and Turkcell Küçükyalı Plaza, the trials used Tiami Networks' PolyEdge™ solution to analyze changes in 5G signals and generate information about human movement, crowd-density levels and location without relying on cameras. The work demonstrates how today's mobile infrastructure can support advanced sensing capabilities expected to play an increasingly important role as networks evolve toward 6G.

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Our work with Turkcell demonstrates how existing cellular infrastructure can support advanced sensing capabilities as networks evolve toward 6G.”

*Amitav Mukherjee, CEO of
Tiami Networks*

Real-world sensing using 5G C-band

The first phase of testing took place at the Istanbul Expo Center using Turkcell's Mobile Private Network solution. By analyzing 5G signals, the joint team estimated the number

of people at different crowd-density levels with 90% accuracy and estimated the location of an individual within three meters.

The trials also evaluated human-presence, crowd-density and security-related sensing scenarios

using C-band 5G infrastructure. According to Turkcell, the work marked the first time in Türkiye that these ISAC scenarios were tested in the C-band on commercial 5G infrastructure.

Unlike camera-based monitoring approaches, ISAC can derive information about movement and density from changes in wireless signals already being used for communications. This creates opportunities for applications including crowd management, indoor positioning and facility security while avoiding the need for video-based monitoring infrastructure.

Validated beyond the controlled test environment

A second phase of testing was conducted at Turkcell Küçükyalı Plaza, where the system was used to estimate crowd density at the building entrance and successfully tested in a security scenario in which human movement could trigger an alarm.

Testing the technology in both a dedicated trial environment and an operating facility demonstrated its potential to move beyond laboratory experimentation toward practical sensing applications on real-world mobile networks.

Advancing the role of sensing in next-generation networks

ISAC is an important element of the 6G roadmap and is identified within the International Telecommunication Union's IMT-2030 framework as a capability that can enable future communications infrastructure to sense its surrounding environment.

For Turkcell and Tiami Networks, the field trials demonstrate that many of these capabilities can begin to be explored today using existing 5G infrastructure, creating a bridge between current commercial networks and future 6G use cases.

"Our work with Turkcell demonstrates how existing cellular infrastructure can support advanced sensing capabilities as networks evolve toward 6G," said Amitav Mukherjee, Founder and CEO of Tiami Networks. "We are excited to collaborate with Turkcell's 6GEN.LAB team in exploring practical ISAC applications and the role sensing can play in next-generation mobile networks."

"With 5G and beyond, the role of mobile networks is changing. Future networks will not simply provide high-speed, uninterrupted connectivity; they will also evolve into intelligent systems capable of sensing their surroundings," said Prof. Dr. Vehbi Çağrı Güngör, Chief Network Technologies Officer at Turkcell. "In our work with Tiami Networks, we demonstrated under real-world conditions that, by analyzing signals from our existing 5G infrastructure with artificial intelligence, we can estimate crowd density with high accuracy and detect building entries and exits based on human activity in real time."

About Tiami Networks

Tiami Networks develops integrated sensing and communications technologies that enable wireless infrastructure to provide both connectivity and situational awareness. Its portfolio includes passive sensing, deployable 5G, resilient communications, AI-enabled network intelligence and non-terrestrial networking technologies for defense, public-safety and commercial applications.

About Turkcell

Turkcell is a technology and telecommunications company headquartered in Türkiye, offering a unique portfolio of voice, data and TV services over its mobile and fixed networks along with digital consumer, enterprise and techfin services. Turkcell Group operates in three countries: Türkiye, Belarus and Northern Cyprus. Listed on both the NYSE and BIST since July 2000, Turkcell remains the only dual-listed company on these exchanges. Read more at www.turkcell.com.tr/en-en/about-us/investor-relations

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