AI-powered PNT by BlueSpace.ai Removes Single Point of Failure in GPS-denied Areas

BlueSpace Positioning Solution (BPS) debuted at CES 2024 with its AI-Powered situational awareness and mapping, providing resiliency in GPS-denied areas.

EMERYVILLE, CA, UNITED STATES, January 18, 2024 /EINPresswire.com/ -- “Single point of failure” are not the words you want to hear when it comes to safety and mission-critical solutions. The National Security Council director Caitlin Durkovich described the Global Positioning System (GPS) as “a significant single point of failure in our country” not too long ago.

At CES, BlueSpace.ai unveiled its assured positioning, navigation, and timing (A-PNT) solution for precise navigation in GPS-denied and GPS-degraded environments for manned and unmanned vehicles. BlueSpace.ai, based out of Silicon Valley, is an industry leader in off-road and unstructured autonomy, leveraging next-gen 4D sensing.

> “The market is responding enthusiastically to AI-Powered BlueSpace Positioning Solution that offers more capabilities with fewer infrastructure requirements”
>
> *Christine Moon, Co-Founder & President at BlueSpace.ai*

Accurate PNT is necessary for the functioning of many critical infrastructures such as the electrical power grid, commercial airline navigation, and mapping. In recent years, there have been concerted efforts by the U.S. Army to find alternative solutions while reducing the reliance on GPS. Weak GPS signal - similar to 25-watt light bulb shining 12,500 miles away - can be subject to jamming or spoofing, sometimes intentionally by adversaries, and sometimes unintentionally blocked due to urban canyons, terrain, or underground tunnels.

BlueSpace Positioning Solution (BPS) offers significant advantages through superior performance (<0.3% cross track error or drift error) outperforming the industry standard of roughly 1% error over distance traveled. Due to the software’s capability to maintain high

performance while utilizing less costly industrial-grade IMUs, significant improvements to SWaP-C are seen, notably in cost.

Compared to existing solutions that may need to ping GPS every second to maintain their positional accuracy, BPS only pings once a minute (traveling at ~40-50mph). BPS can be more selective about accepting or rejecting degraded GPS measurements without interrupting operations, ensuring accuracy is maintained over longer distances.

Best yet, with no additional hardware, BlueSpace provides real-time mapping capabilities and situational awareness. This edge AI solution that powers BPS has no geofence limitation, and most importantly, removes dependencies on having to have prior training data and ultra HD mapping.

This enhanced capabilities also is a leap forward for many commercial applications, including challenging and dynamic underground mining environments where GPS is prone to disruption or failure. Reliable and consistent positioning of mining equipment and movement is critical to the safety and productivity of mining operations.

“The market is responding enthusiastically to AI-powered solutions that boost reliability and productivity. BlueSpace Positioning Solution edge AI solution can offer more capabilities with fewer infrastructure requirements,” commented Christine Moon, Co-Founder & President at BlueSpace.ai.

BlueSpace has engagements across defense and commercial applications - for underground mining, truck and bus automation, and off-road autonomy.

For potential partnership and investment inquires, reach out to partners@bluespace.ai

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