



NextNav and Satelles Collaborate to Establish an Alternative PNT Testbed in the San Francisco Bay Area

New technology evaluation capabilities inaugurated in demonstration for U.S. DHS

SUNNYVALE, Calif., and RESTON, Va., October 5, 2021 — [NextNav](#) and [Satelles, Inc.](#) today announced that they have partnered on an alternative positioning, navigation, and timing (PNT) testbed in the San Francisco Bay Area. Designed and managed by NextNav with a timing source from Satelles, the testbed creates scenarios and conditions to rigorously test the precision and resilience of alternative PNT solutions, allowing technologies to be evaluated in the absence of signals from the Global Position System (GPS) and other Global Navigation Satellite Systems (GNSS).

NextNav recently used the testbed to demonstrate the precision and resilience of the company's [TerraPoiNT](#) network in a GPS-denied environment using [STL](#) from Satelles as its absolute timing source. This [demonstration for the U.S. Department of Homeland Security](#) (DHS) showcased the timing accuracy and resilience of TerraPoiNT, which delivered timing synchronization better than 50 nanoseconds in urban and semi-urban settings. As a source of GPS/GNSS-independent time that the U.S. National Institute of Standards and Technology (NIST) [determined](#) is highly consistent with Coordinated Universal Time (UTC) — including in deep indoor environments — STL provided the timing signal for the demo instead of GPS.

The advent of the alternative PNT testbed is timely given the recent publication of "[Understanding Vulnerabilities of Positioning, Navigation, and Timing](#)" by the Cybersecurity and Infrastructure Security Agency (part of DHS). This important CISA publication urges owners and operators of critical infrastructure to adopt the responsible use of PNT as defined in [Executive Order 13905](#). The new testbed will be used to demonstrate applications for emergency services, telecommunications, financial markets, the electrical grid, and other critical infrastructure sectors.

"Demonstrating the accuracy and resilience of alternative PNT solutions is integral in validating the capabilities of alternative PNT solutions, and ultimately, increasing adoption across use cases and applications," said Ashu Pande, TerraPoiNT VP at NextNav. "With the development of this testbed, we can emulate real world deployment scenarios and can more effectively instill confidence across the PNT industry in the viability of alternate PNT solutions."

"The development of this testbed will enable the rigorous, transparent, and replicable testing of alternative PNT solutions," said Christina Riley, VP of Commercial PNT at Satelles. "We're excited to be integrated as the GNSS-independent timing reference for this alternative PNT testbed and are looking forward to continuing our collaborative work to build stronger PNT solutions to augment GPS globally."

The U.S. Department of Transportation categorized TerraPoiNT from NextNav and STL from Satelles as the top-ranked PNT systems in its technology demonstration [report](#) released earlier this year. The testbed collaboration between these complementary alternative PNT service providers underscores the companies' market leadership and joint commitment to promoting the adoption of multiple technologies that complement and augment GPS/GNSS to protect the operations of critical infrastructure.

In June 2021, NextNav entered into a definitive merger agreement with Spartacus Acquisition Corporation (NASDAQ: TMTS, TMTSW, and TMTSU) ("Spartacus") in a transaction that would result in NextNav being listed on the Nasdaq. The transaction is expected to close early in the fourth quarter of 2021, subject to satisfaction of customary closing conditions.

About NextNav

NextNav provides next generation GPS. NextNav Pinnacle uses highly accurate vertical positioning to transform location services so they reflect the 3D world around us. Our revolutionary TerraPoiNT system keeps critical infrastructure resilient with reliable Position, Navigation and Timing services in the absence of GPS. With carrier-grade dependability and a rapidly expanding nationwide service footprint, NextNav is driving a whole new ecosystem for geolocation applications and services.

About Satelles

Satelles provides secure time and location signals from low Earth orbit (LEO) that are independent of the Global Positioning System (GPS) and other Global Navigation Satellite Systems (GNSS). Satelles' Satellite Time and Location (STL) service safeguards against devastating attacks to GPS/GNSS capable of disrupting or disabling electrical grids, wireless communications networks, financial systems, and other private and public infrastructure in ways that seriously imperil the safety and security of our society.

Available today anywhere on the planet, the STL service delivers assured positioning, navigation, and timing (PNT) via a satellite broadcast signal that is stronger and more secure than other solutions. The company delivers assured PNT at levels of stability, reliability, and trust required by commercial enterprises and government entities across a range of critical infrastructure, IoT, and cybersecurity applications. Satelles partners with device manufacturers to incorporate STL signal support into today's latest equipment, bringing the benefits of Satellite Time and Location to customers around the world.

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