



NEWS RELEASE

Adtran launches Satellite Time and Location solution for enhanced GNSS resilience

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News summary:

- GPS and other GNSS services are susceptible to disturbances and attacks that could impact critical network synchronization
- New Adtran Oscilloquartz timing solutions featuring STL PNT technology boost security and reliability through a dual-source approach
- These include M.2 form factor OSA 5400 STL module and OSA 5405-S, ideal for indoor use and as a backup for GNSS vulnerabilities outdoors

HUNTSVILLE, Ala.--(BUSINESS WIRE)-- Adtran today launched new synchronization solutions featuring Satellite Time and Location (STL) technology to address the growing vulnerabilities of GPS and other GNSS systems to jamming and spoofing attacks. Alongside GNSS-based timing, the **OSA 5405-S** PTP grandmaster clock can now receive STL signals. This compact and versatile device caters to a diverse range of indoor and outdoor deployment settings, serving industries from 5G and data centers to smart grids and defense. Also available from the Adtran Oscilloquartz suite is the OSA 5400 STL module, which brings the benefits of a compact STL/GNSS receiver to third-party switches and servers. STL harnesses low-earth orbit (LEO) satellites as a distinct time source, offering not just an effective alternative to GNSS but also enhancing it with greater reliability and security. This dual-source approach aligns with zero-trust principles, ensuring resilience even in the event of GNSS disruption.

Adtran's OSA 5405-S and OSA 5400 STL module will prove key in tackling GNSS vulnerabilities.

“The world is waking up to the need for timing resilience. As

(Photo: Business Wire)



GNSS systems face increasing vulnerabilities, it's clear that relying solely on traditional synchronization sources is a ticking time bomb for our critical infrastructure. The potential fallout could be massive: grounded flights, non-functioning power plants and financial systems thrown into chaos. That's why the launch of our OSA 5405-S is so crucial. With this solution, we're making jamming and spoofing nearly impossible," said Gil Biran, GM of Oscilloquartz, Adtran. "By ensuring highly precise positioning, navigation and timing (PNT) services even in GNSS-denied applications, our OSA 5405-S will be a vital resource for mobile operators, power utility companies, government, scientific research and more."

The OSA 5405-S seamlessly supports both LEO time services and multi-constellation GNSS, among other timing sources. By leveraging the power of STL signals, which are up to 1,000 times stronger and significantly more secure than GNSS, it can penetrate even the most challenging environments, including deep inside buildings and other hard-to-reach locations. This not only ensures more accurate and consistent timing but also boosts reliability in urban and indoor settings. Managed by Adtran's **Ensemble Controller**, the OSA 5405-S is simple and scalable, accommodating various management mechanisms. With its compact and carbon-friendly design, it features the lowest energy footprint on the market. The OSA 5400 STL module also now incorporates STL receiver technology. This M.2 module empowers third-party equipment vendors, driving unparalleled resilience and ensuring that synchronization remains uncompromised in the most challenging conditions.

"We're excited about this collaboration with Adtran's Oscilloquartz division, marking another significant step in the evolution of PNT solutions. The integration of our STL technology into the OSA 5405-S and OSA 5400 STL module is a testament to the forward-thinking approach of Adtran's Oscilloquartz team. They not only address current synchronization challenges but also anticipate the future needs of the industry," commented Christina Riley, VP and GM of commercial enterprise solutions at Satelles. "Harnessing the strength of LEO signals, our STL technology extends PNT capabilities where GNSS has limitations, especially in indoor environments. And in spaces where GNSS is accessible, STL provides an added layer of resiliency and precision in accordance with a zero-trust architecture. Apart from its superior reach, the simplicity, security and cost-effectiveness of installing STL make it a pivotal tool in strengthening synchronization network infrastructure."

Further information on the OSA 5405-S and OSA 5400 STL module is available in these **slides**.

About Adtran

ADTRAN Holdings, Inc. (NASDAQ: ADTN and FSE: QH9) is the parent company of Adtran, Inc., a leading global provider of open, disaggregated networking and communications solutions that enable voice, data, video and internet communications across any network infrastructure. From the cloud edge to the subscriber edge, Adtran empowers communications service providers around the world to manage and scale services that connect people, places and things. Adtran solutions are used by service providers, private enterprises, government organizations

and millions of individual users worldwide. ADTRAN Holdings, Inc. is also the largest shareholder of Adtran Networks SE, formerly ADVA Optical Networking SE. Find more at **Adtran, LinkedIn and X**.

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