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FOR IMMEDIATE RELEASE

January 5, 2026

osdyne collaborates with Pagani and STMicroelectronics on Rust-based Software Platform

MOUNTAIN VIEW, Calif., January 5, 2026 — osdyne is pleased to announce their collaboration with Pagani Automobili and STMicroelectronics on a new generation of automotive components, bringing together ST's cutting-edge hardware capabilities, Pagani's mastery of creating the ultimate hypercars, and osdyne's ground-up rethinking of chip-to-cloud software development for automotive and other industries with software-controlled machines: consumer appliances, robotics, aerospace, medical devices, and so on.

The collaboration's first result is the osdyne Automotive Gateway, which leverages ST's Stellar SR6 G Series MCUs with osdyne's operating system and software platform based on the modern memory-safe Rust language. Designed jointly by osdyne, Pagani, and ST, and initially targeted for use in a future Pagani hypercar, the Gateway provides a powerful mechanism for building automotive software functionality such as intra-car and car-to-X communication routing and firewalling, access control and security, diagnostics, telemetry, remote monitoring, and over-the-air updates. The result is easy to implement, deploy, maintain, and evolve.

From the venerable light bulb to a spaceship, the world is full of "machines" that are increasingly software-defined and inter-connected. ST's chips already feature in a lot of these machines. As their number continues to explode, these machines must be safe, secure, trustworthy, and fault-tolerant. The application logic required needs to be so sophisticated and complex that existing software building blocks, tools, and methodologies are painfully inefficient, and often incapable. This is a major impediment to innovation and manufacturer independence, particularly in Automotive.

"We take a lot of inspiration from iOS and Android, both well-designed platforms with rich libraries and developer tools that allow for any and all application logic possible. The mobile revolution truly transformed the world and created a new software economy. That transformation hasn't happened in embedded software yet. We are bringing the same philosophy to machines," said **Amit Singh**, CEO of osdyne. Atop a core operating system that drives modern hardware efficiently, the libraries, together with a repertoire of design and development tools, free developers from the heavy lifting. This "taming of complexity" reduces development time and costs significantly, empowering developers to do more while spending fewer resources.

osdyne's software platform has a clean-slate architecture specifically for machines as opposed to general-purpose computers. Its creators have incorporated lessons learned from successful software platforms, and applied their experience, knowledge, and hindsight to

bringing modern software principles and methodologies to machines. The osdyne Software Ecosystem includes:

- A scalable, portable realtime operating system written in Rust, with a purpose-built all-Rust software stack above
- A driver abstraction layer
- Software building blocks any and all machines might need (networking stack, cryptography, security, storage, sensors, actuators, other peripherals)
- Cloud components to supplement machine functionality, with solution-mechanisms for common pain points such as over-the-air updates, provisioning, and management
- A software component store to ensure supply chain reliability and to enable third parties to monetize their work
- State of the art software tools for designing, modeling, rapid-prototyping, implementing, debugging, testing, tracing, visualizing, and simulating various system aspects

"Great hardware is only part of the equation. Without efficient software tools that let developers fully exploit hardware capabilities, we're leaving performance on the table. osdyne's platform empowers engineers to unlock the exceptional performance, flexibility, and connectivity of our Stellar SR6 and STM32 family, ensuring no capability is left untapped," said **Loris Valenti**, Vice President of Microcontroller and Digital Product Group at STMicroelectronics. ST's diverse portfolio of application industries makes ST and osdyne a great fit. Because of osdyne's architecture and Rust's safety, and given that ST has a very large number of customers across all types of industries, ST + osdyne is a step change in how machine software is done in various verticals. The "Stindion" development board running osdyne is an example of the hardware-software synergy that enables a manufacturer to rapidly prototype application logic without compromising on efficiency and quality.

"At Pagani, we have always believed that innovation requires looking beyond conventional solutions. Just as we pioneered carbon composites in automotive, we are now pioneering a new approach to automotive software for our future cars," said **Horacio Pagani**, Founder and Chief Designer of Pagani Automobili. Pagani is the first car manufacturer to put osdyne into practice: the results of this collaboration are intended for future Hypercars scheduled for release after 2030. Pagani engineers extensively used osdyne to compare against conventional approaches. The significant improvements in development velocity and efficiency with the osdyne approach led to this collaboration. As automotive manufacturers worldwide attempt to take control of their software destinies, Pagani is taking a big step into the future by starting to use a next-generation software platform that gives them unprecedented control and flexibility in how they develop and innovate software for their cars.

For more information about the osdyne platform and the Automotive Gateway, visit osdyne.com. Developers and manufacturers interested in early access can apply through the website.

About

osdyne Inc., a technology company founded in 2023 by industry veterans and headquartered in Mountain View, California, is working on creating a unified software ecosystem in Rust for all machines with software logic: that is, for anything and everything beyond general-purpose computers. osdyne's Rust software layers include a highly portable real-

time operating system that runs on a variety of ARM, Intel, and RISC-V processors, a flexible driver model for current and future peripherals, a rich collection of reusable software-building-blocks for diverse industries, a set of powerful design and development tools, a versatile cloud framework, and a component store.

Pagani Automobili S.p.A. is an Italian manufacturer renowned for crafting some of the world's most exclusive Hypercars. After gaining experience at Lamborghini, Horacio Pagani founded the company in 1998. Pagani's philosophy is inspired by Leonardo da Vinci, who believed that Art and Science could walk hand in hand. Each car is the result of relentless research, where technological innovation meets aesthetic refinement to shape timeless automobiles. Hand-built inside the creative Atelier, every Pagani Hypercar is a bespoke work of craftsmanship—personalized down to the smallest detail to reflect the unique personality of its owner.

STMicroelectronics is a leader in semiconductor technologies. Thanks to ST's mastery of the semiconductor supply chain and their state-of-the-art manufacturing facilities, ST's integrated devices are used by more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. ST's technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of cloud-connected autonomous things.

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