

6WIND Showcases Multi-Terabit Cloud Networking on Next-Gen COTS Platforms, Reinforcing Software as a Scalable Path Ahead

PARIS, FRANCE, December 2, 2025 /EINPresswire.com/ -- [6WIND](#), a global leader in high-performance, sustainable virtualized and cloud-native networking software, today reinforced its leadership in high-performance cloud networking with new results that highlight the power of software-defined, hardware-agnostic solutions on next-generation commercial off-the-shelf (COTS)

servers. These results clearly show why software-based architectures remain the only sustainable path to achieving superior performance, agility, and total cost efficiency in modern cloud environments.



As COTS servers evolve with the latest Intel, AMD, and ARM CPU families, combined with rapidly increasing I/O capacity enabled by PCIe Gen5, Gen6 and soon Gen7, cloud networking functions can now scale both horizontally and vertically to multi-terabit throughput levels. This evolution unlocks higher performance per core, increased density, improved energy efficiency per Gbps, and a significantly better TCO.

Real-World Example: Multi-Terabit Performance on Intel® Xeon® 5th Gen (Emerald Rapids)

In recent testing conducted on a partner platform, the Portwell CAR-5071 equipped with Intel Xeon 5th Gen (Emerald Rapids), 6WIND achieved breakthrough performance gains across major cloud networking functions, without the use of any dedicated hardware accelerators.

The testing demonstrated routing performance reaching up to 170 Gbps per core and scaling to more than 1.6 Tbps per instance. IPsec processing achieved up to 22 Gbps per core and scaled to over 600 Gbps per instance while supporting more than 100,000 tunnels with rapid tunnel setup capability. CG-NAT performance reached up to 120 Gbps per core and scaled beyond 600 Gbps per instance, supporting multi-hundred millions of sessions with high session creation rates.

These results illustrate how next-generation general-purpose CPUs, when combined with

optimized software, can deliver performance levels that once required specialized hardware, now with greater scalability, efficiency, and flexibility.

Software: The Only Practical Path to Cloud-Scale Networking

Hardware-locked approaches cannot evolve at the pace demanded by modern cloud deployments. Only software can fully capitalize on the rapid improvements in compute density, memory bandwidth, and PCIe throughput delivered by the latest COTS platforms.

By keeping all solutions hardware-agnostic, 6WIND enables service providers to deploy cloud networking functions seamlessly across different regions, networks, and cloud environments. This eliminates lock-in, simplifies operations, and enables faster service innovation.

Committed to Solving Customer Challenges

As service providers face increasing traffic demands, cost pressures, and operational complexity, 6WIND remains dedicated to delivering flexible and efficient solutions that adapt to their evolving needs. The company's cloud networking portfolio is designed to reduce hardware requirements by more than 60%, lower operational costs by over 40%, and deliver up to a three-times performance boost through pure software virtualization.

"The results we are announcing today confirm what the industry has been moving toward for years: software is now the only scalable, sustainable, and future-proof path for cloud networking. We are enabling our customers to reach multi-terabit performance with the flexibility and scalability or agility of software. This is the new standard for cloud networking—and 6WIND is leading that transformation." Cited Julien Dahan, CEO, 6WIND

About 6WIND

6WIND leads the way in virtualized and cloud-native networking software solutions. Specializing in high-performance and efficiency, 6WIND's products enable service providers and enterprises to build and manage efficient, scalable, secure, and sustainable networks. Our offerings span Broadband Evolution, Cloud Connectivity, Mobile Network Security, 5G SA Enablement, B2B services, AI-RAN Enablement and more, ensuring comprehensive solutions for diverse use cases.

6WIND's software solutions are deployed globally by ISPs, CSPs, MNOs, NHPs, Cloud Providers, Data Centers, and Enterprises. With a constant commitment to innovation, 6WIND enables its customers to embrace the new AI era and meet the evolving demands of the digital landscape.

6WIND operates globally, with headquarters in Paris, France, Santa Clara, CA, USA, and Singapore.

Neelam Bahal
6WIND

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