

Tachyum Successfully Runs FreeBSD on Prodigy FPGA Prototype

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LAS VEGAS--(BUSINESS WIRE)-- **Tachyum** ® today announced that the FreeBSD operating system is now running on the Prodigy® FPGA prototype as part of efforts to ensure that customer requirements are met prior to tape-out of the world's first universal processor. This announcement follows Tachyum successfully running the Linux OS as part of its emulation system.

FreeBSD powers modern servers, desktops and embedded platforms in environments that value performance, stability and security. It is the platform of choice for many of the busiest websites and the most pervasive embedded networking and storage devices.

As Tachyum readies a rich and robust collection of applications, system software, frameworks and libraries in advance of Prodigy chip production, increased customer demand for FreeBSD made testing it under FPGA a priority. The company's ability to prioritize customer needs is one of the key reasons Tachyum accelerated support for LLVM and is a reflection of how its software engineers continue to work to enable the full potential of Prodigy.

Tachyum previously announced that it had completed FreeBSD porting. Applications for FreeBSD have now been added to the Quality Assurance (QA) testing timeline, which have been made a priority with the addition of FreeBSD to the FPGA prototype, in order to further satisfy customer demand.

"For Prodigy to truly be considered a universal processor, it is imperative that we are able to provide capabilities to any number of OS environments, software applications and system architectures," said Dr. Radoslav Danilak, founder and CEO of Tachyum. "With the completion of testing of FreeBSD, we now have all planned operating systems successfully vetted under Prodigy FPGA hardware and gets us one step closer to revolutionizing the data

center as we know it when we begin shipping products next year.”

As a Universal Processor offering industry leading performance for all workloads, Prodigy-powered data center servers can seamlessly and dynamically switch between computational domains (such as AI/ML, HPC, and cloud) with a single homogeneous architecture. By eliminating the need for expensive dedicated AI hardware and dramatically increasing server utilization, Prodigy reduces CAPEX and OPEX significantly while delivering unprecedented data center performance, power, and economics. Prodigy integrates 192 high-performance custom-designed 64-bit compute cores, to deliver up to 4.5x the performance of the highest-performing x86 processors for cloud workloads, up to 3x that of the highest performing GPU for HPC, and 6x for AI applications.

A video demonstration of FreeBSD running on Prodigy FPGA is available for viewing at <https://youtu.be/iB457KclC4>.

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About Tachyum

Tachyum is transforming the economics of AI, HPC, public and private cloud workloads with Prodigy, the world's first Universal Processor. Prodigy unifies the functionality of a CPU, a GPU, and a TPU in a single processor to deliver industry-leading performance, cost and power efficiency for both specialty and general-purpose computing. As global data center emissions continue to contribute to a changing climate, with projections of their consuming 10 percent of the world's electricity by 2030, the ultra-low power Prodigy is positioned to help balance the world's appetite for computing at a lower environmental cost. Tachyum recently received a major purchase order from a US company to build a large-scale system that can deliver more than 50 exaflops performance, which will exponentially exceed the computational capabilities of the fastest inference or generative AI supercomputers available anywhere in the world today. When complete in 2025, the Prodigy-powered system will deliver a 25x multiplier vs. the world's fastest conventional supercomputer – built just this year – and will achieve AI capabilities 25,000x larger than models for ChatGPT4. Tachyum has offices in the United States and Slovakia. For more information, visit <https://www.tachyum.com/>.

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