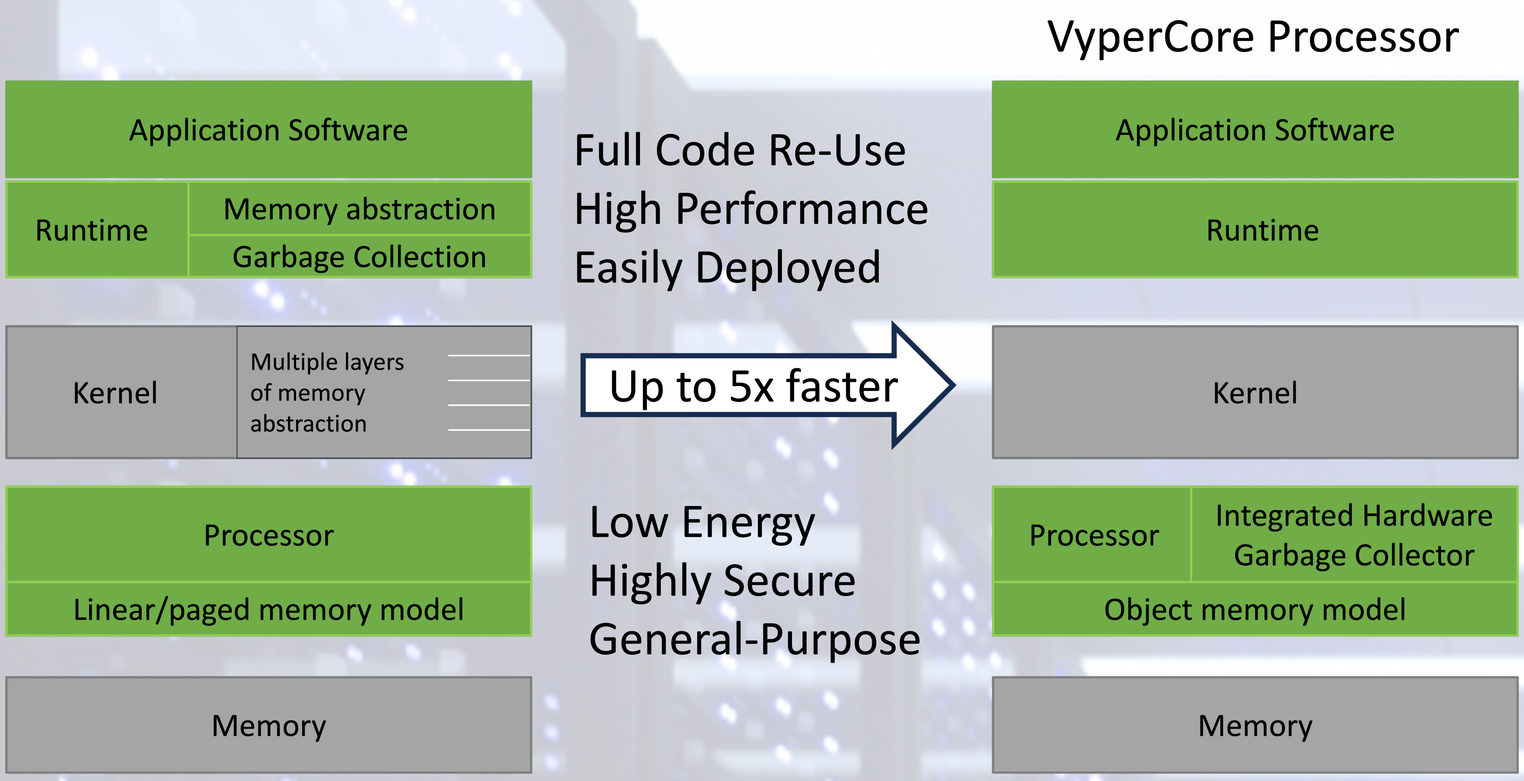
vypercore

Performant and secure compute

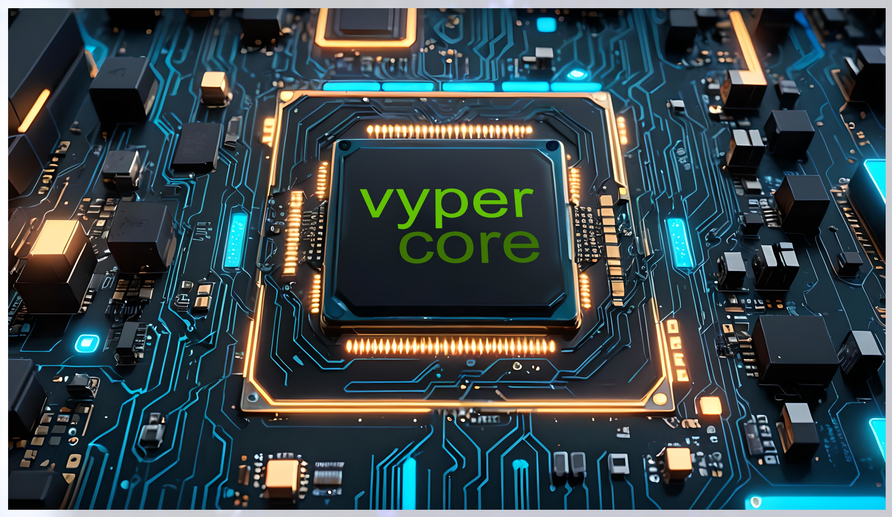


RISC-V Innovation

By harnessing the flexibility and extensibility of RISC-V to reimagine processor microarchitecture, VyperCore is designing a new server-class application processor chip for accelerating modern high-level / managed languages up to 5x for general-purpose applications.

Performance, efficiency, and security

- Acceleration is achieved by replacing the software-based memory allocation management with a high-performance integrated hardware garbage collection inside the CPU.
- Moving this activity to hardware frees 50% to 80% of CPython's processing of real-world applications.
- Application software ports with zero code changes.



VyperCore technology

- Applicable to a broad range of managed-languages, including Python, Java, Javascript, C#, and Go.
- Can be implemented within all leading general-purpose processor architectures, including x86, Arm and RISC-V
- Delivers benefits across all classes of processor, from server-grade designs down to small embedded cores
- Removes all known memory safety vulnerabilities
- Orthogonal to existing efforts to accelerate the performance of managed-language workloads.

Based upon research from

University of BRISTOL

Trustworthy Systems Laboratory

vypercore.com